PB-245 842

A STUDY OF EMISSIONS FROM 1967-1974 LIGHT-DUTY VEHICLES IN LOS ANGELES AND ST. LOUIS

M. Van Loan, et al

Automotive Environmental Systems, Incorporated

Prepared for:

Environmental Protection Agency

October 1974

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EPA-460/3-74-016
OCTOBER 1974

PB 245 842

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Waste Management
Office of Mobile Source Air Pollution Control
Certification and Surveillance Division
Ann Arbor, Michigan 48105

TECHNICAL REPORT DATA

(Please read Instructions on the reverse before completing)

1. REPORT NO.
EPA-460/3-74-016

2.

3. RECIPIENT'S ACCESSION NO.

4. TITLE AND SUBTITLE
A Study of Emissions from 1967-1974 Light-Duty Vehicles in Los Angeles and St. Louis

5. REPORT DATE
October 1974

6. PERFORMING ORGANIZATION CODE

7. AUTHOR(S)
M. Van Loan and J. R. Sachtschale

8. PERFORMING ORGANIZATION REPORT NO.

9. PERFORMING ORGANIZATION NAME AND ADDRESS
Automotive Environmental Systems, Inc.
7300 Bolsa Ave.
Westminster, California 92683

10. PROGRAM ELEMENT NO.

11. CONTRACT/GRANT NO.
68-03-0390

12. SPONSORING AGENCY NAME AND ADDRESS
U.S. Environmental Protection Agency
Office of Air and Waste Management
Office of Mobile Source Air Pollution Control
Ann Arbor, Michigan 48105

13. TYPE OF REPORT AND PERIOD COVERED

14. SPONSORING AGENCY CODE

15. SUPPLEMENTARY NOTES

16. ABSTRACT

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17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group

PRICES SUBJECT TO CHANGE

18. DISTRIBUTION STATEMENT
Release Unlimited

1.

19. SECURITY CLASS *(This Report)*
UNCLASSIFIED

20. SECURITY CLASS *(This page)*
UNCLASSIFIED

21. NO. OF PAGES
204

22. PRICE
7.25-2.25

EPA Form 2220-1 (9-73)

EPA-460/3-74-016

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Waste Management
Office of Mobile Source Air Pollution Control
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October 1974

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A comprehensive study of exhaust and evaporative emissions from consumer-owned light-duty vehicles was performed in the Los Angeles, California, and St. Louis, Missouri, areas to determine the contribution to atmospheric pollution by 1967 through 1974 model-year vehicles. This study was conducted as part of a total effort to measure the emissions from light-duty vehicles in six cities. Automotive Environmental Systems, Inc. (AESi) performed exhaust emission tests on 180 vehicles in Los Angeles, California, and St. Louis, Missouri, as well as SHED (Sealed Housing for Evaporative Determinations) and charcoal canister evaporative emission tests on twenty 1975 model-year vehicles in Los Angeles, California. Modal exhaust emission tests were performed on all 1972 through 1974 model-year vehicles. In addition to determining levels of exhaust hydrocarbons, carbon monoxide, carbon dioxide, and oxides of nitrogen exhaust and evaporative emissions, the carbon atom mass balance technique was employed to calculate vehicle fuel economy.

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1. INTRODUCTION

The Congress through the enactment of the Clean Air Act of 1963 and the Clean Air Act Amendments of 1970 provided for a national air pollution program to monitor and control emissions from new motor vehicles. Administrative responsibility for the air pollution control program is vested with the U. S. Environmental Protection Agency (EPA). Recognizing the problem of air pollution due to motor vehicles, EPA has assigned a high priority to the control and measurement of emissions from light-duty vehicles and has contracted with Automotive Environmental Systems, Inc. (AESi) for continuance of an ongoing effort to survey emissions from "on-the-road" vehicles. This ongoing effort is to develop and update accurate emission factors which quantify the contribution of light-duty vehicles to atmospheric pollution. Once emission factors are known and the proper segment of the air pollution inventory is attributed to motor vehicles, the effectiveness of current emission control strategies can be established and updated.

Since 1971, EPA has sponsored programs for the acquisition of data from light-duty motor vehicles. Vehicle emission data has been generated annually in six metropolitan areas. The six cities selected in 1971 were representative of the most populated areas in the United States, as well as the most diverse areas in terms of climate and terrain. For the 1971 and 1972 fiscal year programs, the six cities were Los Angeles, Denver, Houston, St. Louis, Chicago, and Washington, D.C. For the 1973 fiscal year program, the city of Newark, New Jersey, was selected by EPA in place of the city of Washington, D.C.

In each subsequent program year, EPA has sought to update the light-duty vehicle population inventory. For this year's program, 1967 through 1974 model-year vehicles representative of the national vehicle population were selected. The 1966 through 1971 model-year vehicles received 1972 and 1975 Federal Test Procedure (FTP) emission tests. The 1972 through 1974 model-year vehicles received the 1972 and 1975 FTP tests and modal emission tests. Twenty of the 1973 model-year vehicles were also tested for evaporative emissions using the SHED and charcoal canister test procedures. In performing these tests for EPA, AESi conducted testing in two of the six cities--Los Angeles, California, and St. Louis, Missouri. The description and results of this program for these two cities are presented in this report.

2. TECHNICAL DISCUSSION

2.1 PROGRAM OBJECTIVE

The overall objective of "A Study of Emissions from 1967 through 1974 Light-Duty Vehicles in Six Cities" was to gather accurate exhaust, modal, and evaporative emission data which are statistically representative of the nation's vehicle population. This data will be used to develop average emission factors which precisely define emission characteristics from light-duty vehicles in the United States. The average emission factors are to be used by the National Air Data Branch (NADB) and the Office of Transportation Land Use Policy (OTLUP) of the United States Environmental Protection Agency to determine the contribution of light-duty vehicles to the national air pollution inventory. These factors will enable NADB to project vehicle emission levels which may be used in metropolitan areas to anticipate pollution episodes or to assist in the evaluation of pollution control strategies such as transportation controls. In addition, this program will update vehicle exhaust emission data on 1967 through 1971 model-year vehicles, provide exhaust and modal emission data on 1972 through 1974 model-year light-duty vehicles, and furnish evaporative emission data on twenty 1973 model-year vehicles in Los Angeles, California, using both the SHED and charcoal canister techniques.

2.2 PROGRAM DESIGN

In support of the broad objective of this program to accumulate exhaust, evaporative and modal emission data which will provide an accurate measure of the automobile's contribution to the nation's emission inventory, several subordinate objectives had to be fulfilled. The first, and perhaps most important, was to ensure that the sample from which vehicle emission data was obtained was statistically representative of the nationwide population. This task was accomplished by testing a statistically representative sample of vehicles in six cities located across the United States. Three contractors were selected by the Environmental Protection Agency to perform these tests. General Environments Corporation tested vehicles in Newark, New Jersey; and Automotive Testing Laboratories performed emission testing in Denver, Colorado; Houston, Texas; and Detroit, Michigan. In this program, AESi tested vehicles in Los Angeles, California, representative of the warm and sunny western portion of the United States; and in St. Louis, Missouri, typical of the Great Plains area of the United States.

Another important consideration in support of the overall program objective was the proper selection of test vehicles, model years 1967 through 1974. The 1973 model-year vehicles were tested to generate exhaust and evaporative emission data, and the 1967 to 1972 vehicles were tested to up-date data generated in last year's program. In any statistical sampling program, there is always concern about the statistical validity of the sample. A careful delineation of the various vehicle makes, engine sizes, transmission and carburetion types was obtained, and a desired national test vehicle sample was developed by the Surveillance Branch, Office of Air and Waste Management Programs, of the Environmental Protection Agency.

Another important consideration in support of the program objective was the orderly accumulation of precise test data. Therefore, precision test equipment, well-defined procedures, and rigorous qualification, calibration, and cross-check techniques were used in the program.

In order to accumulate accurate exhaust and evaporative emission test data from the vehicle sample, techniques which measure the true polluting characteristics of vehicles were required. The constant volume sampling technique as specified in the 1973 and 1975 Federal Test Procedures was used to measure the exhaust emission characteristics of the test vehicles.

The evaporative emission test procedures used for testing in Los Angeles were the Sealed Housing for Evaporative Determinations (SHED) technique and the activated charcoal canister technique currently in use by the Environmental Protection Agency for determining evaporative emissions. The SHED technique consists of placing the car in an enclosure and measuring the concentration of evaporative hydrocarbons in the atmosphere within the enclosure. The activated charcoal canister technique consists of trapping all external fuel system vents on the vehicle with activated charcoal canisters.

2.3 TEST VEHICLE PROCUREMENT

2.3.1 Selection Procedure

The objective of the test vehicle procurement task was to obtain test vehicles of the approximate make, model year, engine displacement, transmission, and carburetor venturis which satisfy the test vehicle matrix provided by EPA (Figure 2.3-1). To satisfy this objective, AESi used procedures that have proven successful over the years in the performance of similar programs. A key source of candidate vehicle owners was lists of registered vehicle owners obtained from R. L. Polk and Company. The lists for the two cities were developed on the basis of an nth-name sampling technique. This technique resulted in the selection of a random sample by selecting the vehicles whose owners resided at every "nth" street address within the sample area, where:

$$n = \frac{X}{Y}$$; where X = Total number of vehicle owners per city
and Y = Sample size

AESi contacted vehicle owners on the lists in accordance with the requirements of the test vehicle matrix by sending a letter and postage-paid return card to each of these owners. In many cases where the vehicle owner did not respond initially, a follow-up phone call resulted in obtaining the vehicle owner's cooperation.

In addition, AESi also obtained the names of vehicle owners who were willing to participate in the program through various activities directed towards publicizing the program and its requirements. A press release was submitted to the Project Officer for his approval, and upon receipt thereof was forwarded to key newspapers, and radio and television stations. Many interested vehicle owners contacted AESi as a result of this publicity, and their names and the characteristics of their vehicles were entered into the pool of candidate test vehicles. A substantial number of candidate test vehicle owners also volunteered their cars through the efforts of various civic organizations in publicizing the program.

MAKE	TOTAL	1974	1973	1972	1971	1970	1969	1968	1967
AMC	5		011 258A1*		076 304A2		125 [illegible]	146 232M1	164 [illegible]
Buick	11	001 455A4*	012 350A2* 013 455A4*	046 350A4* 047 455A4*	077 350A2* 078 455A4*	103 455A4*	126 350A2*	147 430A4*	165 340A4
Cadillac	4		014 472A4*		079 472A4*			148 472A4*	166 429A4*
Capri	1		015 122A2						
Chevrolet	44	002 307A2 003 350A2*	016 140A1 017 250M1 018 307A2 019 307A2* 020 350A2 021 350A2* 022 350A4* 023 400A2*	048 140M2 049 250A1 050 307A2 051 350A2* 052 350A2* 053 350A4* 054 400A2*	080 140A1 081 307A2 082 350A2 083 350A2* 084 350A4* 085 400A2*	104 250M1 105 307A2 106 350A2 107 350A2* 108 350A4* 109 400A2*	127 250M1 128 307A2 129 327A2 130 350A2 131 350A4* 132 400A2*	149 230A1 150 307A2 151 327A4 152 350A2 153 396A4*	167 250M1 168 283A2 169 283A2 170 327A4*
Chrysler	4		024 400A2*		086 440A4*		133 383A2*		171 383A2*
Datsun	3		025 071M2	055 097M2	087 071M2				
Dodge	10	004 360A2*	026 225A1 027 318A2*	056 318A2 057 360A2*	088 318A2*	110 383A2*	134 225A1	154 383A2*	172 318A2
Ford	37	005 302A2 006 351A2*	028 122M2 029 200A1 030 302A2* 031 351A2 032 351A2* 033 400A2* 034 400A2*	058 122A2 059 302A2 060 351A2 061 351A2* 062 400A2* 063 429A4*	089 122M2 090 200A1 091 302A2 092 351A2* 093 429A2*	111 200M1 112 302A2 113 351A2 114 351A4* 115 390A2*	135 302A2 136 302A2 137 351A2 138 351A2* 139 390A2*	155 200A1 156 289A2 157 302A2 158 390A2*	173 289A2 174 289A2 175 390A2*
Lincoln	1			064 460A4*					
Mazda	1		035 070M1						
Mercury	7		036 429A4*	065 400A2*	094 400A2*	116 429A2*	140 390A2*	159 302A2*	176 390A2*
Oldsmobile	12	007 350A4*	037 350A4* 038 455A4*	066 350A2* 067 455A4*	095 350A4* 096 455A4*	117 350A2* 118 455A4*	141 455A4*	160 350A2*	177 425A4*
Opel	1			068 116A2					
Plymouth	12	008 318A2*	039 318A2 040 360A2*	069 225M1 070 318A2*	097 225M1 098 318A2*	119 318A2* 120 318A2	142 318A2	161 318A2	178 225A1
Pontiac	13	009 400A2*	041 350A2* 042 400A2*	071 350A2* 072 455A4*	099 350A2* 100 400A2*	121 350A2* 122 400A2*	143 350A2* 144 400A2*	162 400A2*	179 326A2
Toyota	4		043 120M2	073 097M2	101 071M1	123 071M1			
Volkswagen	10	010 097M1	044 097M1 045 103A2	074 097M1 075 097M1	102 097M1	124 097M1	145 091M1	163 091M1	180 091M1
TOTALS	**180**	**10**	**35**	**30**	**27**	**22**	**21**	**18**	**17**

FIGURE 2.3-1 NATIONAL VEHICLE POPULATION PROFILE

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As a result of the various activities undertaken by AESi to obtain the names of candidate vehicle owners, a large number of volunteers offered their vehicles for testing in the program, and these were accumulated in a pool. From this pool, test vehicles were selected sequentially on the basis of satisfying all of the physical requirements of such test vehicles.

AESi personnel then contacted the owners of the selected vehicles and asked that they deliver their vehicles to the laboratory in accordance with the test schedule. If a selected vehicle subsequently became unavailable, an alternate vehicle was substituted.

2.3.2 Incentives

To encourage participation, incentives were provided to each vehicle owner whose vehicle was used in the program. Each participant was offered a free fully insured loan car while his car was being tested, a full tank of gas, and a $25 U.S. Savings Bond.

2.3.3 Test Vehicle Handling

Test vehicles were scheduled for testing at each of the laboratories in accordance with the respective laboratory work load and manpower capabilities. Accordingly, the scheduling of test vehicles was a critical task, especially since the vehicle owners were encouraged to deliver their vehicles to the laboratories. Arrangements were made with the owners of the candidate vehicles several days in advance, and the owners were again reminded of the appointments one day prior to the scheduled time of delivery or pickup.

Virtually all of the participants required loan cars while their cars were being tested. AESi arranged for the provision of such loan cars with full insurance in accordance with contractual requirements, through the services of a rental car agency. From the standpoint of the rental car fleet at each test facility, scheduling was especially important, since each participant expected to be provided a rental car expeditiously upon his arrival at the laboratory. Unless a participant from the previous day had returned a rental car well in advance of the new participant's arrival, the new participant either had to wait for the arrival of a rental car, or additional loan cars had to be provided. In the interest of expediting the program and making it as convenient as possible for the participants, AESi chose to have additional loan cars on hand to ensure the immediate availability of loan cars for all participants delivering their test vehicles to the laboratory.

Each candidate in the program signed two documents in conjunction with the exchange of vehicles. The first document was a test agreement which absolved the participant of all liability relating to his vehicle while in the possession of AESi. The second document indemnified the participant from any liability arising from the use of the loan car.

2.4 FACILITIES AND EQUIPMENT

2.4.1 Test Locations

Test facilities were located in the metropolitan areas of Los Angeles and St. Louis. In accordance with contractual requirements, both of the facilities were located within ten miles of the metropolitan areas. The address and elevation above mean sea level of each facility follows:

Los Angeles

7300 Bolsa Avenue
Westminster, California 92683
50 feet

St. Louis

10723 Indianhead Boulevard
St. Louis, Missouri 63132
400 feet

2.4.2 Constant Volume Sampler

The equipment described in this section was designed and built in accordance with requirements stipulated in pertinent issues of the Federal Register for performing vehicle emission tests in accordance with the 1972 through 1975 Federal Test Procedures. An AESi-designed and fabricated Constant Volume Sampler was utilized in each city. Each of these Constant Volume Samplers featured a gas-to-water heat exchanger and temperature control circuit allowing for precise control of the sample temperature. Inlet pressure depression was adjusted by a precision butterfly valve enabling inlet pressure adjustments to within plus or minus 0.05 inches of water. Blower speed was maintained at a constant 1,125 revolutions per minute by the use of a constant speed motor. Blower revolutions were counted by the use of a magnetic pickup and an electronic counter. All function controls are push-button operated, giving a confirming visual indication when each particular function is being performed. Table 2.4.1 lists the performance specification of the Constant Volume Sampler. Listed on the left are the specifications as itemized under Section 85.073-20 of the Federal Register, and on the right the performance specifications of the Constant Volume Sampler.

Constant Volume Sampler - Performance Specifications

SPECIFICATION	CVS PERFORMANCE
1. Must have two particulate filters plus one charcoal filter with a total pressure drop of less than 1" H_2O.	0.3"-0.4" H_2O Drop
2. Tailpipe pressure within ±1" H_2O during driving cycle with CVS and without CVS.	+0.0"-0.55" H_2O as measured during the first 250 seconds of the Federal cycle. The static pressure tap was located 3-1/3" from the end of the tailpipe.
3. Preheater to bring CVS within ±10°F of set point prior to test startup.	±2°F
4. A heat exchanger to maintain set point within ±10°F during the Federal test cycle.	±5°F
5. A positive displacement pump of 300 to 350 CFM capacity calibrated per Appendix III.	Sutorbilt 5LV running at 1125 RPM, producing approximately 343 CFM. See calibration section for calibration information.
6. Temperature sensor within ±2°F allowing continuous recording.	±2°F
7. Gauge (G1) with accuracy of ±3 mm Hg.	±0.2 mm Hg
8. Gauge (G2) with accuracy of ±3 mm Hg.	±0.2 mm Hg
9. Sample probes (S1 and S2).	Five specially designed probes (S1, S2, continuous S1 and S2 plus raw exhaust)
10. Filters (F1 and F2).	F1 and F2
11. Pumps (P1 and P2).	Stainless steel Metal Bellows pumps (P1 and P2) plus 1 to 3 additional pumps for other purposes.
12 & 13. Flow control valves (N1 and N2) and flowmeters (FL1 and FL2) to ensure constant sample flow.	Flowmeters (FL1 and FL2) with integral valves (N1 and N2) plus, in some cases, flow control pressure regulators.
14. Three-way solenoid valves (V1 and (V2).	Stainless steel Skinner 3-way valves (V1 and V2)

TABLE 2.4-1

15.	Quick connect leak-tight fittings (C1 and C2) to connect sample bags to CVS, EAC, purge cylinder and evacuation pump.	Specially designed leak-tight pneumatic system using solenoid and/or rotary valves to perform sample and bag management without any fittings or make/break operations. This facilitates rapid and accurate sample analysis.
16.	Sample collection bags of sufficient capacity.	Four large sample bags made of Tedlar. These bags can be analyzed, evacuated, purged and reevaluated in alternate pairs such that the 1975 procedure calling for six samples can be performed with four bags.
17.	A revolution counter for pump revolutions.	Two revolution counters electrically latched to the sample solenoid valves. As a backup the elapsed time of each test phase is recorded. The blower is driven by a synchronous motor such that blower RPM is constant. Thus; N = ET (RPM).

TABLE 2.4-1 (Continued)

2.4.3 Exhaust Analysis Console (EAC)

The exhaust analysis consoles used during the performance of this program were designed in accordance with specifications stipulated in various Federal Registers for vehicle emission testing by the 1972 and 1975 Federal Test Procedures. The features specified in the 1975 Federal Test Procedure for drying the sample gas and removing carbon dioxide from the carbon monoxide sample train were not included. The instruments used in the exhaust analysis consoles were the Beckman Model 315 A or 315 B Nondispersive Infrared Analyzers (NDIR's) for the measurement of carbon monoxide and carbon dioxide. The carbon monoxide instrument featured a stacked sample cell configuration and three-range amplifier. The carbon dioxide analyzer contained the standard 1/8-inch sample cell with a three-range amplifier. Table 2.4.2 lists the performance specifications of the exhaust analysis consoles.

A Beckman Model 400 Flame Ionization Detector (FID) was utilized to measure total hydrocarbons. Each of the Model 400 Flame Ionization Detectors was operated with a 40 percent hydrogen/60 percent nitrogen fuel mixture and special capillary to minimize the oxygen effect.

The Thermo Electron Corporation Model 10A Chemiluminescence Analyzer was used for the measurement of NO and NO_x. This instrument was equipped with seven ranges from 0 to 10 through 0 to 10,000 ppm NO. A thermal converter was employed to convert NO_2 and other nitrogen oxides to NO. A Thermo Electron Corporation Model 100 NO_x generator was added to each EAC unit in performing NO_x converter efficiency determinations in accordance with 38 Federal Register 124, Section 85.074-23.

Honeywell Model 193 Potentiometric Recorders were used in the exhaust analysis console to record all instrument signal outputs. Table 2.4-3 indicates the ranges used for each instrument.

Exhaust Analysis Console - Performance Specifications

SPECIFICATION	AESi EAC PERFORMANCE
1. Quick-connect, leak-tight fitting (C3) to attach sample bags to analytical system.	Specially designed leak-tight system using solenoid valves to manage sample and background bag analysis without disturbing system fittings or seals.
2. Filter (F3) to remove any residual particulate matter from the collected samples.	Three filters are used: one filter for the FID instrument, one filter for the NO_x instrument, and one filter for both the CO and CO_2 NDIR instruments.
3. Pump (P_3)	Three sample pumps are used, aligned in the same manner as described above for the filters.
4. Selector valves (V3, V4, and V5)	Selector valves and solenoid selector valves.
5. Flow control valves to regulate the gas flow rates.	Flow control valves and sample by-pass flow control valves.
6. Flowmeters (FL3, FL4 and FL5)	Four flowmeters, one for each instrument and sample by-pass flowmeters.
7. Manifold to collect expelled gases from each analyzer.	Manifold to collect expelled gases.
8. Pump (P4) to transfer expelled gases to a vent external to the test room (optional).	Pump not necessary. Expelled gases are vented to outlet side of the CVS positive displacement pump, which is exhausted external to the test facility.
9. Analyzers to determine hydrocarbon, carbon monoxide and oxides of nitrogen concentrations.	Analyzers to determine hydrocarbon, carbon monoxide, oxides of nitrogen and carbon dioxide concentrations.
10. An oxides of nitrogen converter to convert any NO_2 present in the samples to NO before analysis.	An oxides of nitrogen converter to convert any NO_2 present in the samples to NO before analysis.
11. Selector valves (V6 and V7) to allow gases to bypass the converter.	Stainless steel solenoid selector valves to manage bypass of the oxides of nitrogen converter.
12. Recorders (R1, R2 and R3)	Two Honeywell Model 193 potentiometric recorders were used in each EAC.

TABLE 2.4-2

INSTRUMENT RANGES

INSTRUMENT	AESI RANGE NO.	NOMINAL RANGE CONCENTRATIONS
Hydrocarbon	1	0 - 300 ppm
	2	0 - 1,000 ppm
	3	0 - 3,000 ppm
	4	0 - 10,000 ppm
Carbon Monoxide	2	0 - 5.0 percent
	3	0 - 3.0 percent
	6	0 - 0.3 percent
Carbon Dioxide	2	0 - 8.0 percent
	3	0 - 4.0 percent
NO and NO_x	4	0 - 100 ppm
	5	0 - 250 ppm
	6	0 - 1,000 ppm
	7	0 - 2,000 ppm

TABLE 2.4-3

2.4.4 Evaporative Emissions Equipment

An AESi-designed and fabricated SHED (Sealed Housing for Evaporative Determinations) was used in Los Angeles to perform the evaporative emission portion of the test program. The SHED was constructed of light-gauge aluminum panels providing excellent heat dissipation. Panels were bolted together at formed flanges, and the SHED was fitted with windows, doors, and a ceiling of tautly stretched Dupont Tedlar polyvinyl fluoride film. The SHED dimensions are 10 feet wide by 20 feet long by 8 feet high--large enough to accommodate all standard sized automobiles. Specially designed doors seal completely upon closing, rendering the enclosure leak proof and pressure tight. Specifications for the SHED were in agreement with all requirements stipulated in the SAE J171 Evaporative Emission Test Procedure. A Beckman Model 400 Flame Ionization Detector was used in conjunction with the SHED to measure hydrocarbon evaporative emissions. In performing evaporative emission tests using the activated carbon canister technique, AESi used specially prepared canisters manufactured by Steffy Metal Products. The canisters were baked at 350°F for three hours while purged with moisture- and hydrocarbon-free nitrogen. Prior to installing the carbon canister traps, they were weighed twice and reconditioned as required until a stable weight was recorded.

The AESi Fuel Conditioning Cart used to condition test fuel was of the same design and manufacture as those used by the Environmental Protection Agency in the Ann Arbor facility. The fuel conditioning cart was capable of maintaining a bulk fuel temperature of 60° or less, and of transferring fuel from one tank to another. It features an internal fuel circulating mode to expedite gasoline temperature conditioning and to prevent temperature stratification within the tank. The cart was fabricated in accordance with the National Electric Code specifications for equipment operated in hazardous atmospheres.

2.4.5 Laboratory Standard Calibration Gases

Two complete sets of laboratory standard calibration gases were furnished to AESi. The contents of each cylinder were analyzed and concentrations were assigned by the Office of Air & Waste Management Programs of the Environmental Protection Agency in Ann Arbor. Each laboratory used the standard set of gases for defining the complete instrument calibration curves and for subsequent assigning of values to the day-by-day "working" gases. The laboratory standard gases and their nominal concentrations are tabulated in Table 2.4-4.

2.4.6 Chassis Dynamometer

A Clayton Variable Inertia Chassis Dynamometer (CE-50) equipped with 250-pound increment inertia loading weights and low bridge torque and speed measuring systems utilized in the CE-50 provided an overall accuracy within 1.0% of full scale. AESi has added a tachometer generator driven by the front roll to the CE-50 to operate the driver's aid chart and facilitate calibration.

2.4.7 Miscellaneous Equipment

In addition to the equipment previously described, Varian driver aids were utilized to provide driving schedules for the various driving sequences performed during this program. An Autoscan ignition analyzer, timing lights, tach-dwell meter, other tuneup equipment, and small tools were used as necessary. To measure idle carbon monoxide, a Horiba Mexa 300 dual range NDIR exhaust gas analyzer was used. The nominal concentration ranges for this instrument are 0-10% and 0-2% carbon monoxide, and 0-400 ppm and 0-2000 ppm hexane equivalents.

Precise weighing of propane recovery test cylinders was accomplished using a Sartorius Balance which can weigh up to 2.2 Kg with a resolution of 10 mg and an accuracy of ± 7 mg. The balance

LABORATORY STANDARD CALIBRATION GASES
(Los Angeles)

Gas Cylinder	AESi Range	Nominal Concentration		
MH-851	3	.633	%	CO_2
A-12247	3	1.581	%	CO_2
MH-558	3	2.363	%	CO_2
A-9277	3	3.144	%	CO_2
A-8788	3	3.926	%	CO_2
A-12247	2	1.581	%	CO_2
MH-558	2	2.363	%	CO_2
A-8788	2	3.926	%	CO_2
A-6198	2	5.73	%	CO_2
MH-860	2	7.94	%	CO_2
A-8358	4	45.9	PPM	NO_x
A-10576	4	94.0	PPM	NO_x
A-10576	5	94.0	PPM	NO_x
A-11983	5	213.5	PPM	NO_x
A-4479	6	435	PPM	NO_x
A-12235	6	954	PPM	NO_x
A-12235	7	954	PPM	NO_x
A-8505	7	1,875	PPM	NO_x
A-10190	1	133.8	PPM	C
MH-871	1	282.5	PPM	C
A-10934	2	469.0	PPM	C
A-8702	2	917.6	PPM	C
A-9629	3	1,296	PPM	C
A-9238	3	2,662	PPM	C
MH-2506	4	4,286	PPM	C
A-6465	4	8,519	PPM	C
A-497	6	.0504	%	CO
A-1468	6	.1066	%	CO
MH-1627	6	.1695	%	CO
A-9149	6	.2313	%	CO
MH-872	6	.2991	%	CO
MH-1627	3	.1695	%	CO
MH-872	3	.2991	%	CO
A-12870	3	.551	%	CO
A-8818	3	1.595	%	CO
A-11955	3	2.588	%	CO
A-12870	2	.551	%	CO
A-8818	2	1.595	%	CO
A-11955	2	2.588	%	CO
A-3452	2	3.56	%	CO
A-9654	2	4.49	%	CO

Table 2.4-4

LABORATORY STANDARD CALIBRATION GASES

(St. Louis)

Gas Cylinder	AESi Range	Nominal Concentration
A-12461	3	.620 % CO_2
A-9535	3	1.596 % CO_2
A-8794	3	2.370 % CO_2
MH-1764	3	3.142 % CO_2
A-11917	3	3.901 % CO_2
A-9535	2	1.596 % CO_2
A-8794	2	2.370 % CO_2
A-11917	2	3.901 % CO_2
MH-793	2	5.74 % CO_2
A-10115	2	7.94 % CO_2
A-7288	4	45.9 PPM NO_x
MH-2486	4	93.75 PPM NO_x
MH-2486	5	93.75 PPM NO_x
A-12412	5	213.0 PPM NO_x
A-12252	6	446 PPM NO_x
A-2959	6	954 PPM NO_x
A-2959	7	954 PPM NO_x
A-13044	7	1,881 PPM NO_x
A-10620	1	135.5 PPM C
A-9332	1	280.1 PPM C
A-9257	2	463.1 PPM C
A-10920	2	916.3 PPM C
A-7539	3	1,296 PPM C
MH-109	3	2,686 PPM C
MH-700	4	4,218 PPM C
A-10816	4	8,515 PPM C
A-7023	6	.0504 % CO
MH-919	6	.1063 % CO
MH-151	6	.1680 % CO
MH-1073	6	.2298 % CO
MH-1558	6	.2997 % CO
MH-151	3	.1680 % CO
MH-1558	3	.2997 % CO
MH-773	3	.532 % CO
MH-343	3	1.592 % CO
A-9964	3	2.612 % CO
MH-773	2	.532 % CO
MH-343	2	1.592 % CO
A-9964	2	2.612 % CO
MH-969	2	3.54 % CO
A-10993	2	4.52 % CO

Table 2.4-4 (continued)

contains Class S weights which are traceable to the National Bureau of Standards. For less precise measurement, an O'Haus Scale with an accuracy of ± 50 mg was used.

Absolute pressure was measured with a Meriam Model 310EF10 Mercury Manometer incorporating a 0.01 inch of mercury vernier scale and a thermometer. Calibration is traceable to the National Bureau of Standards and is within 0.009 inch of mercury throughout the working range.

Temperature measurements were made with certified ASTM 64F or 50F thermometers or pyrometers and thermometers calibrated against the ASTM thermometers. Calibration is traceable to the National Bureau of Standards.

For calibration of the constant volume sampler, AESi used Meriam Model 50 MC2-6SF and Model 50 MC2-4SF laminar flow elements. Both of these instruments have calibration curves traceable to the National Bureau of Standards. Moreover, these instruments have been operated in series such that total measurement differences could be observed. These differences are less than 0.5%.

Instruments used to monitor the laminar flow elements include the temperature and pressure devices listed above plus inclined manometers (Meriam Models 40GD10 and 40HE35) for determining the pressure drop across the laminar flow element. The inclined manometers have calibrations which are traceable to the National Bureau of Standards.

2.5 EQUIPMENT QUALIFICATION, CALIBRATION AND CROSS CHECK

This section describes in detail the qualification, calibration and cross check procedures utilized by AESi and EPA technical personnel to ensure the generation of precise emission test data. The requirement for system qualification was ± 2 percent overall accuracy. This requirement encompassed the constant volume sampler, exhaust analysis console, the primary CVS flow calibration device, and a laboratory balance. In addition, the chassis dynamometer was calibrated by the coast-down technique stipulated in the Federal Register. The SHED for evaporative determination in Los Angeles was qualified and calibrated in accordance with procedures stipulated in the SAE Technical Report J171.

In addition to the initial qualifications in each of the cities, EPA personnel supervised periodic calibrations and cross check procedures in each city during the course of the program. No tests were performed in either city before meeting the qualification or cross check requirements. Throughout the course of the program, AESi maintained a schedule for daily, weekly and monthly calibration and maintenance. This procedure included one hour each morning, plus four hours each week, plus eight hours each month to perform this function.

2.5.1 Constant Volume Sampler (CVS)

AESi's CVS's were calibrated with the laminar flow elements and accessories (See Section 2.4.7) by the basic procedure specified in the Federal Register.

In addition to measuring CVS flow at ten pressure differentials (Figure 2.5-1), AESi measured flow at several points at inlet temperatures above and below the set point temperature. During flow testing all possible variables were measured and accounted for. This included an important parameter--the temperature of manometer fluid in the barometer and the inclined manometer. Blower speed was verified by means of a 60 Hz strobe light. The inlet and outlet pressures and

CVS FLOW TEST

DESCRIPTION: ☒ INLET Nominal 110°F Tp
☐ OUTLET Tp Ind Set 1°F Higher Prior To Flow Test

Prj. No.	Site	Date
	StL	2-13-74

$V_o = (\Delta P_L \cdot 127 + 4) f T_M \cdot f T_L \cdot P_L \div P_P \cdot T_P \div 596250$

TECH JGS

P_A cor $H_2O'' = (-0.00136 \cdot T_A\,^{\circ}F + 13.6912) P_A$ Hg"

SH 1 OF 2

STEP NO.	ΔP H_2O"	V_o Ft.³/Rev.	T_A °F	P_A Hg" P_A cor H_2O"	ΔP_L H_2O"	T_M $f T_M$	T_L $f T_L$	☐+ P_L Δ H_2O" ☐− P_L A H_2O"	P_P Δ H_2O" P_P A H_2O"	T_P °F T_P °R	TIME SET READ
1		①		29.01	①	73	72.1	3.84-282	11.2	108.5	11:30
WOT	13.0	0.3521	72	394.34	2.82	1.00	.9933	393.3	383.1	568.5	12:17
						74.5	71.4	3.78-2.36	13.25	110.0	12:18
2	15.0	0.2974			2.36	0.9984	0.9950	392.92	381.1	570.0	12:36
						74	64.8	3.73-2.32	13.2	108.5	12:36
3	14.9	0.2987			2.32	0.9987	1.0169	392.90	381.1	568.5	12:40
						73.5	69.8	3.68-2.305	18.3	110.0	12:54
4	20.0	0.2962			2.305	0.999	1.000	393.0	376.0	570.0	1:07
						73.5	70.0	3.59-2.24	23.4	110.5	1:08
5	25.0	0.2928			2.245	0.999	1.000	393.0	370.9	570.5	1:23
						73.5	70.6	3.50-2.18	28.35	112.0	1:32
6	30.0	0.2893			2.185	0.999	0.9983	393.1	365.99	572.0	1:52
						74.0	70.0	3.42-2.142	33.5	111.5	1:55
7	35.0	0.2878			2.142	0.9987	1.000	393.1	360.84	571.5	2:20
						73.5	70.4	3.51-2.197	28.4	111.5	2:25
8	30.0	0.2910			2.197	0.999	1.000	393.027	365.94	571.5	2:45
						73.5	70.6	3.61-2.242	23.35	109.5	2:50
9	25.0	0.2913			2.242	0.999	0.9983	392.97	370.99	569.5	3:02
						73.5	70.8	3.70-2.302	18.28	110.0	3:07
10	20.0	0.2952			2.302	0.999	0.9983	392.942	376.06	570.0	3:21
						74.0	70.6	3.737-2.322	16.25	110.0	3:28
11	18.0	0.2958			2.322	0.9981	0.9983	392.925	378.09	570.0	3:41
①	FRONT FITTING ON LFE LOOSE										

temperatures were varied over ranges which surround and include in every dimension, the set of conditions at which the CVS is operated during emission testing.

Before inviting EPA personnel to the test site for qualification, AESi performed propane recovery tests in the 0-300 ppm carbon range to ensure proper calibration. For inspecting EPA officers, AESi repeated propane recovery tests to EPA's satisfaction.

Since CVS calibration is critical, continuous checks had to be made. Propane recovery tests were performed in the 0-300 ppm carbon range before testing every day. If the test was not within ± 2 percent, the cause of error was determined, remedied, and duplicate propane tests within ± 2 percent were run before testing began.

The propane test results were plotted so that any upward or downward trend could be detected. If such a trend had developed, the CVS would have been immediately recalibrated using a laminar flow element. The CVS was also leak checked every day. Periodically the pyrometer, pressure gauges and other CVS instruments were checked for calibration regardless of need indicated by propane tests. A log book was maintained for the CVS in which all repairs, alterations, calibrations and propane tests were recorded.

2.5.2 Exhaust Analysis Console (EAC)

Calibration and qualification of the Exhaust Analysis Console (EAC) was performed as stipulated in the Federal Register. Some of the procedures discussed here were performed prior to the arrival of the Project Officer. Prerequisite to qualification of the EAC was analysis of on-site laboratory gases by the Office of Air and Waste Management Programs.

Items which were checked and verified prior to individual instrument calibration were the following: (1) total EAC leak check, (2) checked zero air quality with hydrocarbon free air, (3) adjusted all analyzers to optimize performance as specified by individual instrument manuals, and (4) checked response times for all instruments. The following paragraphs describe individual analyzer optimization procedures and qualification items.

Hydrocarbon Analyzer (Beckman Model 400)

1. Obtain maximum sensitivity using the following method:
   a. Set fuel pressure to approximately 25 psig.
   b. Set air pressure to approximately 15 psig.
   c. Light burner (allow 30 minutes for warmup).
   d. Set sample pressure to approximately 4 psig.
   e. Flow zero grade air and set zero on meter or recorder.
   f. Flow mid-range calibration gas.
   g. With calibration gas flowing through instrument, adjust air pressure to obtain maximum upscale reading.
   h. Adjust sample pressure to obtain maximum reading and best response.
2. Develop instrument curves for ranges 0-300, 0-1000, 0-3000, and 0-10,000 ppm.
3. Verify results graphically.

Carbon Monoxide Analyzer (Beckman Model 315A or 315B)

1. Check and/or adjust instrument tuning.
2. Check and/or adjust demodulator switching pattern.
3. Check instrument response to water and 100% carbon dioxide (CO_2) on range 3.
4. Develop instrument curves for ranges 0-0.3, 0-3.0, and 0-5.0 percent.
5. Verify curve results graphically.

Carbon Dioxide Analyzer (Beckman Model 315A or 315B)

1. Check and/or adjust instrument tuning.
2. Check and/or adjust demodulator switching pattern.
3. Develop instrument curves for ranges 0-4.0 and 0-8.0 percent.
4. Verify curve results graphically.

Oxides of Nitrogen Analyzer (TECo Model 10A)

1. Verify reaction chamber pressure to be in the 5-12 torr range.
2. Check response time through thermal converter versus bypass of thermal converter.
3. Develop instrument curves for ranges 0-100, 0-250, 0-1000, and 0-2000 ppm. (Preliminary converter efficiency check can be performed during curve development.)

4. Converter efficiency checks were performed as described in 38 *Federal Register* 124, June 28, 1973, Section 85-074-23.

EAC daily and weekly checks which were performed and recorded are described below:

Daily Check

1. Leak check of HC, CO, CO_2 and NO instruments.
2. NO vacuum check.
3. HC analyzer - zero and span.
4. CO analyzer - zero, gain and tune.
5. CO_2 analyzer - zero, gain and tune.
6. NO analyzer gain.

Weekly Check

1. Individual instrument curve check of each range used.
2. Converter efficiency.
3. CO response to 100% wet CO_2.

Additional discussion is presented in Section 2.7.1.

2.5.3 Chassis Dynamometer

The Clayton CE-50 dynamometers were calibrated by the coast-down technique specified in 37 *Federal Register* 221. A precision tachometer generator was fitted to the absorption rolls for this purpose. AESi performed the coast-down at several power settings and over the entire range of inertia values. The driver's aid was adjusted to match the correct speed accordingly to a 30 and a 60 Hz strobe light. Dynamometer calibration data was plotted graphically on a Dynamometer Road Load (DRL) form (Figure 2.5-2).

Periodic coast-down calibration checks were performed on each dynamometer. If the data points did not lie within tolerance (1% of full scale or 1/2 hp) of the standing calibration curve, the entire calibration curve set was rerun. A log book and curve file were maintained on all dynamometers.

2.5.4 Evaporative Emissions Equipment

SAE J171 was the guiding document in the design, calibration and maintenance of the SHED. AESi developed a form, the SHED Qualification

Test (SQT), Figure 2.5-3, to facilitate quality control of the SHED. The initial setup of the SHED included calibration of the pyrometers for fuel and enclosure temperatures and calibration of the Flame Ionization Detector (FID) used to determine hydrocarbon concentration within the SHED. Two ranges were utilized for FID operation: (1) 0-100 ppm; and (2) 0-3000 ppm.

For initial calibration a background emission check, SQT Part III was run overnight. Then a calibration check, SQT Part I, was performed followed by the leak check, SQT Part II. Ongoing calibration maintenance consisted of calibration and leak checks conducted on a weekly basis.

AESi used a fuel conditioning cart of the same manufacture and type as used by EPA. The cart simply required calibration of the temperature sensor and adjustment of the thermostatic control system.

Evaporative emission canisters manufactured by Steffy Metal Products of New Baltimore, Michigan, were used for trapping evaporative emissions from fuel system external vents. Care was taken to purge the canister with moisture- and hydrocarbon-free nitrogen at 350°F for about three hours prior to their use. Near the end of the three-hour period, the canisters were weighed and repurged until duplicate and constant weights were recorded using the Sartorius balance (Section 2.4.7).

2090 Prj.No. | WTM Site | 5-30-79 Date

SQT

SHED QUALIFICATION TEST

TECH: JSJ   SHED VOLUME: 1695.3 FT.^{3} = V

I. CALIBRATION

A. PURGE SHED.

B. SEAL DOOR. $*V_{SCF}$ 1671.01 = (-0.00136 · T_A 77 °F + 13.6912)P_A 30.07 Hg" · V · 1.298 ÷ T_S 538 °R

C. READ SHED BACKGROUND. FID 8.8 $*PPM_{BKD}$ 27.84

D. INJECT ≈15 GRAMS PROPANE. CYL. FULL 74.27 - CYL. AFTER 57.36 = *GP 16.64 $TIME_1$ 4:30

E. OPERATE MIXING FAN 3-5 MIN. READ SHED. FID 56.1 $*PPM_1$ 609.92 $TIME_2$ 4:30

(PPM_1 - PPM_{BKD}) 0.00173 · V_{SCF} ÷ GP = *101.12% RECOVERY = 100 ±5%? ✓ PASS

582.08

II. LEAK CHECK

A. LEAVE SHED SEALED AFTER CALIBRATION. LEAVE MIXING FAN ON. DO NOT READ SHED.

B. AFTER 4 HR. READ SHED. FID 56.1 $*PPM_2$ 609.92 $TIME_3$ 8:30 - T_1 = * 4 E.T. HR.

(PPM_1 - PPM_2) V_{SCF} · 0.0000173 ÷ E.T. = *0.0 g/HR. LEAKAGE ≤0.1 g/HR.? ✓ PASS

III. EMISSION CHECK

A. PURGE SHED.

B. SEAL SHED. $TIME_4$ 12:14 $*V_{SCF_2}$ 1657.38 = (-0.00136 · T_A 80 °F + 13.6912)P_A 30.00 Hg" · V · 1.298 ÷ T_S 541 °R

C. READ SHED. FID 23 $*PPM_3$ 25.33

D. LEAVE SHED SEALED AND DO NOT SAMPLE FOR 4 HR. READ SHED.

FID 2.3 $*PPM_4$ 25.33 $TIME_5$ 16:20 - T_4 = *4:06 $E.T._2$ HR.

(PPM_4 - PPM_3) V_{SCF_2} · 0.0000173 ÷ $E.T._2$ = * 0.0 g/HR EMISSION ≤0.1 g/HR.? ✓ PASS

COMMENTS:

*Calculated Value. All others are observed.

FIGURE 2.5-3

2.6 TEST PROCEDURES

2.6.1 Vehicle Preparation

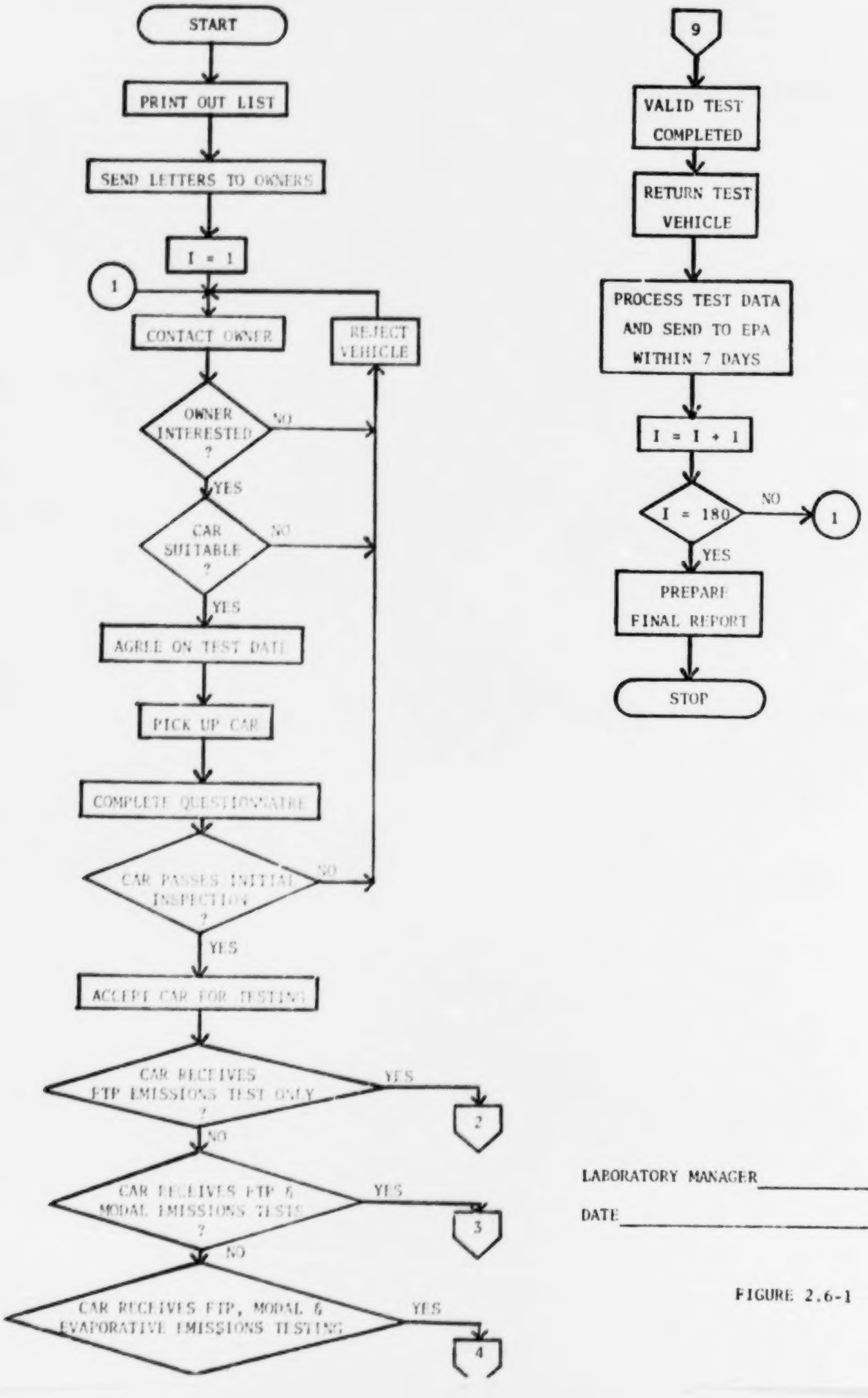
All vehicles tested in this program were inspected upon receipt from the vehicle owner. The inspection consisted of verification of the particular make, model year, type of engine, transmission, and carburetor venturis when the vehicle was picked up from the vehicle owner. In addition, a cursory inspection was performed to determine that the vehicle was operating safely and that the exhaust system was not leaking. Following the cursory inspection of the vehicle, the owner completed the questionnaire. The vehicle was then delivered to the laboratory and prepared for emission testing in accordance with the flow diagram illustrated by Figure 2.6-1. Upon receipt of the vehicle at the emission testing laboratory, the fuel tank was drained and refilled to 40 percent volume with test fuel. Vehicles tested at the St. Louis, Missouri test site laboratory used Indolene 30, and those tested at the Westminster, California (Los Angeles test site) laboratory used either the Indolene 30 or a summer grade fuel very closely matching Indolene 30 test fuel specifications. After test fuel was introduced into the vehicle's fuel tank, the vehicle was preconditioned on city streets for approximately ten minutes to purge the vehicle's fuel system of old fuel. Upon return to the laboratory, the vehicle commenced the soak period of 12 hours minimum to 20 hours maximum at the prescribed soak temperatures in accordance with 37 Federal Register 221.

Vehicles which were evaporative emission tested received an additional inspection to ensure all evaporative emission control components were connected. No repairs were made to any of the components which may have been defective. The vehicle's fuel tank was then drained and the fuel tank cap drilled for the installation of a thermocouple. The fuel tank cap was then installed, and the fuel system pressure checked. The system was pressurized with dry nitrogen to 14 inches of water column, and the pressure drop was recorded after five minutes. The vehicle's fuel tank was filled with two gallons of test fuel and then

EMISSIONS TESTING PROCEDURES
"SURVEILLANCE PROGRAM"
Project 2090

CAR NO.________________ VIN__________________
MAKE__________________ YR.______ CID________
TRANS_________________ BBL__________________

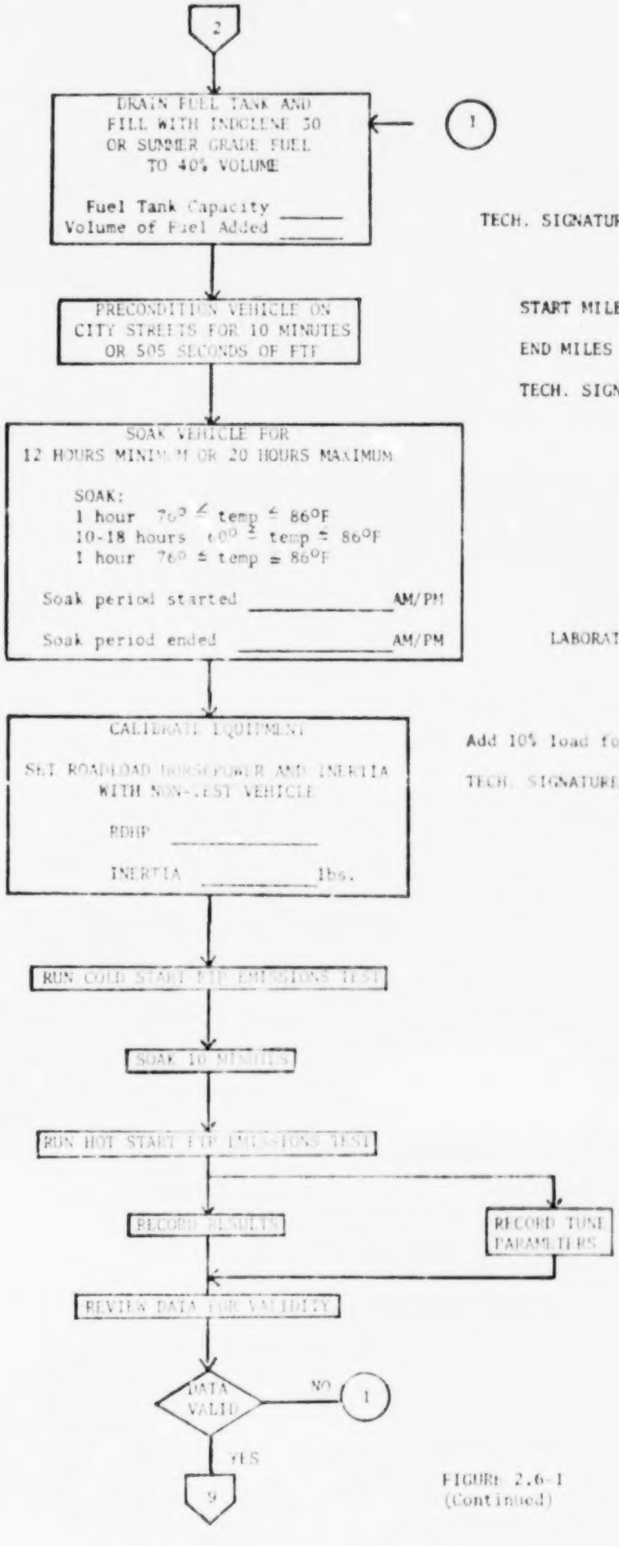
Record all pertinent information on flow diagram as vehicle progresses through testing procedures. **Mark line through event box when that operation is completed and initial work completed.**


START
PRINT OUT LIST
SEND LETTERS TO OWNERS
I = 1
1
CONTACT OWNER
REJECT VEHICLE
OWNER INTERESTED ?
NO
YES
CAR SUITABLE ?
NO
YES
AGREE ON TEST DATE
PICK UP CAR
COMPLETE QUESTIONNAIRE
CAR PASSES INITIAL INSPECTION ?
NO
YES
ACCEPT CAR FOR TESTING
CAR RECEIVES FTP EMISSIONS TEST ONLY ?
YES
2
NO
CAR RECEIVES FTP & MODAL EMISSIONS TESTS ?
YES
3
NO
CAR RECEIVES FTP, MODAL & EVAPORATIVE EMISSIONS TESTING
YES
4
9
VALID TEST COMPLETED
RETURN TEST VEHICLE
PROCESS TEST DATA AND SEND TO EPA WITHIN 7 DAYS
I = I + 1
I = 180
NO
1
YES
PREPARE FINAL REPORT
STOP

LABORATORY MANAGER______________________

DATE________________________________

FIGURE 2.6-1


2
DRAIN FUEL TANK AND FILL WITH INDOLENE 30 OR SUMMER GRADE FUEL TO 40% VOLUME
Fuel Tank Capacity _____
Volume of Fuel Added _____
1
PRECONDITION VEHICLE ON CITY STREETS FOR 10 MINUTES OR 505 SECONDS OF FTP
SOAK VEHICLE FOR 12 HOURS MINIMUM OR 20 HOURS MAXIMUM
SOAK:
1 hour 76° ≤ temp ≤ 86°F
10-18 hours 60° ≤ temp ≤ 86°F
1 hour 76° ≤ temp ≤ 86°F
Soak period started __________ AM/PM
Soak period ended __________ AM/PM
CALIBRATE EQUIPMENT
SET ROADLOAD HORSEPOWER AND INERTIA WITH NON-TEST VEHICLE
RDHP __________
INERTIA __________ lbs.
RUN COLD START FTP EMISSIONS TEST
SOAK 10 MINUTES
RUN HOT START FTP EMISSIONS TEST
RECORD RESULTS
RECORD TUNE PARAMETERS
REVIEW DATA FOR VALIDITY
DATA VALID
NO
1
YES
9

TECH. SIGNATURE__________________

START MILES______________

END MILES ______________

TECH. SIGNATURE__________________

LABORATORY MANAGER__________________

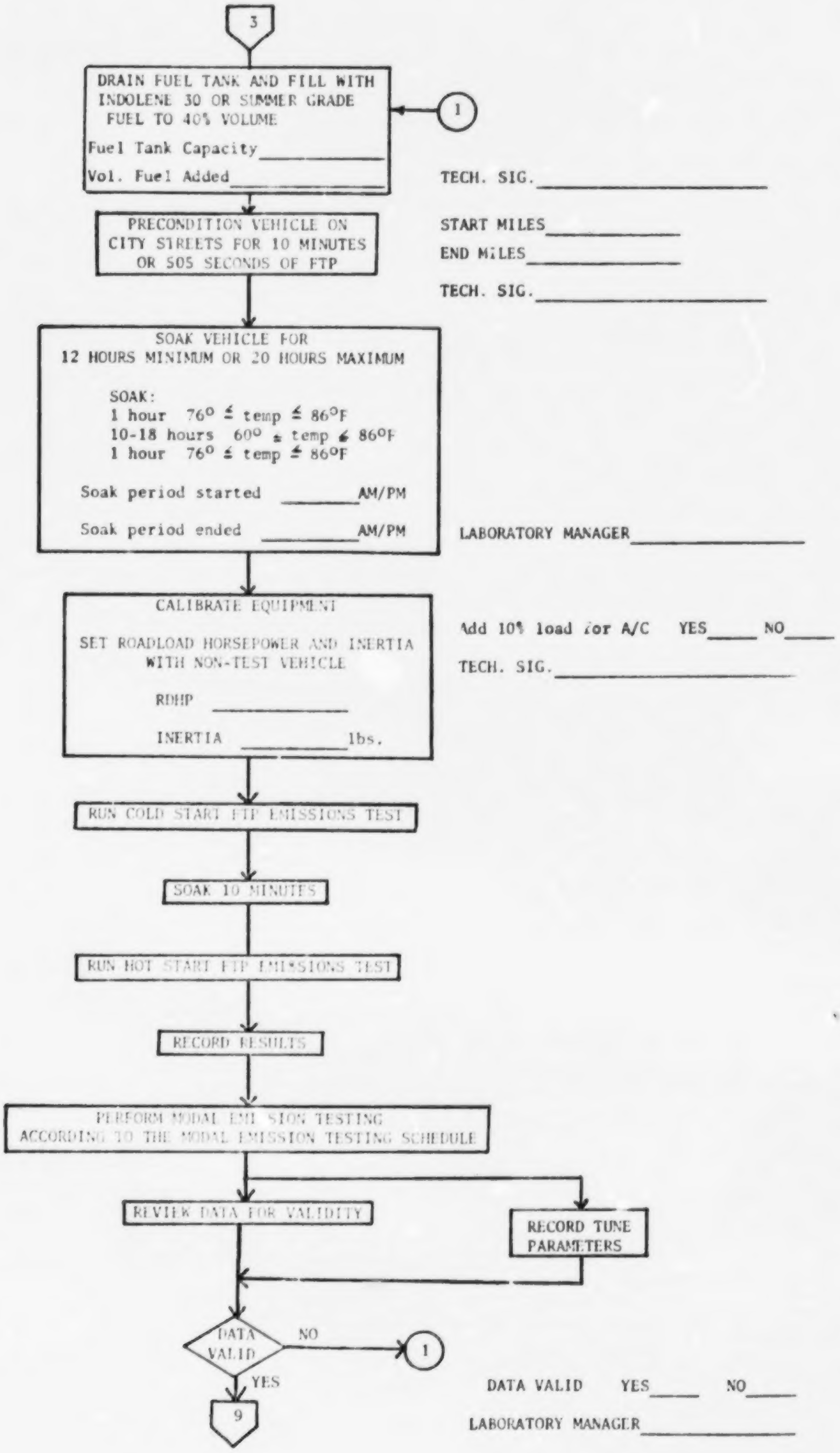
Add 10% load for A/C YES_____ NO_____

TECH. SIGNATURE__________________

DATA VALID YES_____ NO_____

LABORATORY MANAGER__________________

FIGURE 2.6-1
(Continued)


3
DRAIN FUEL TANK AND FILL WITH INDOLENE 30 OR SUMMER GRADE FUEL TO 40% VOLUME
Fuel Tank Capacity____________
Vol. Fuel Added____________
1
PRECONDITION VEHICLE ON CITY STREETS FOR 10 MINUTES OR 505 SECONDS OF FTP
SOAK VEHICLE FOR 12 HOURS MINIMUM OR 20 HOURS MAXIMUM
SOAK:
1 hour 76° ≤ temp ≤ 86°F
10-18 hours 60° ≤ temp ≤ 86°F
1 hour 76° ≤ temp ≤ 86°F
Soak period started ________AM/PM
Soak period ended ________AM/PM
CALIBRATE EQUIPMENT
SET ROADLOAD HORSEPOWER AND INERTIA WITH NON-TEST VEHICLE
RDHP ____________
INERTIA __________lbs.
RUN COLD START FTP EMISSIONS TEST
SOAK 10 MINUTES
RUN HOT START FTP EMISSIONS TEST
RECORD RESULTS
PERFORM MODAL EMISSION TESTING ACCORDING TO THE MODAL EMISSION TESTING SCHEDULE
REVIEW DATA FOR VALIDITY
RECORD TUNE PARAMETERS
DATA VALID
NO
1
YES
9

TECH. SIG.____________________

START MILES____________

END MILES____________

TECH. SIG.____________________

LABORATORY MANAGER________________

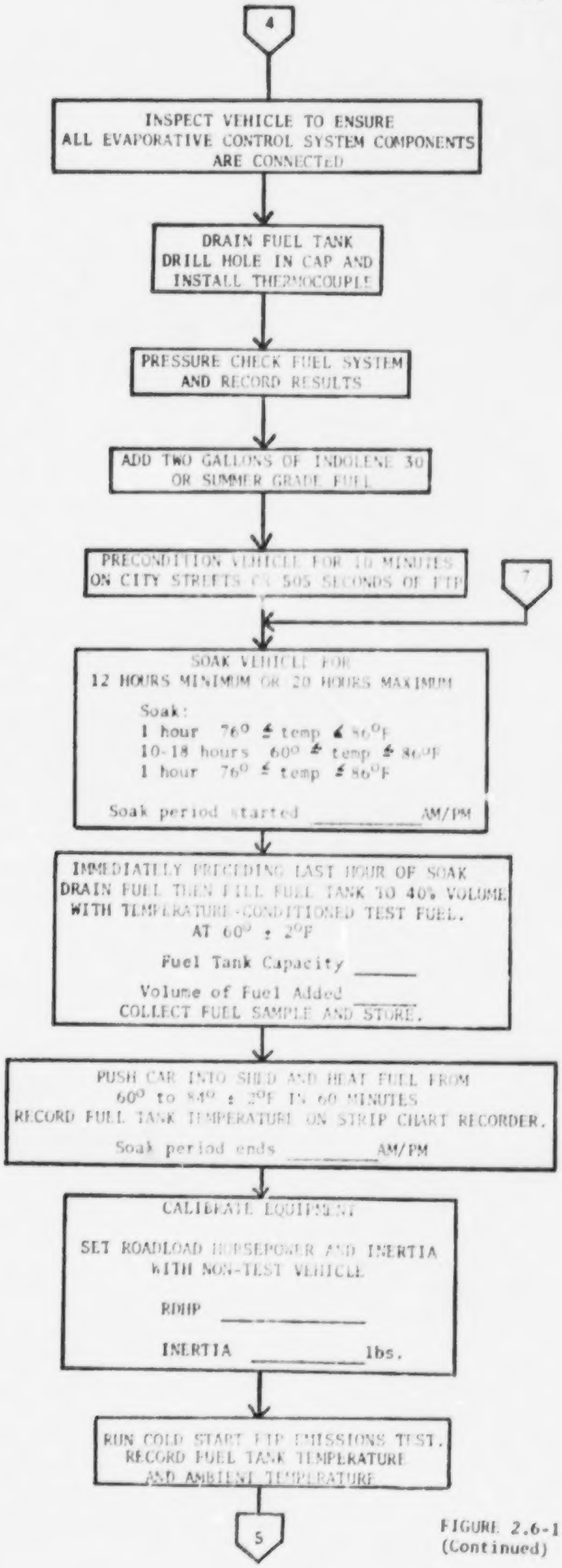
Add 10% load for A/C YES_____ NO_____

TECH. SIG.____________________

DATA VALID YES_____ NO_____

LABORATORY MANAGER________________

FIGURE 2.6-1
(Continued)



INSPECT VEHICLE TO ENSURE ALL EVAPORATIVE CONTROL SYSTEM COMPONENTS ARE CONNECTED

Repairs Necessary **Yes____** **No____**

Tech Sig.______________________

DRAIN FUEL TANK DRILL HOLE IN CAP AND INSTALL THERMOCOUPLE

PRESSURE CHECK FUEL SYSTEM AND RECORD RESULTS

Tech Sig.______________________

ADD TWO GALLONS OF INDOLENE 30 OR SUMMER GRADE FUEL

Tech. Sig.______________________

PRECONDITION VEHICLE FOR 10 MINUTES ON CITY STREETS OR 505 SECONDS OF FTP

Start Miles______________

End Miles______________

Tech. Sig.______________________

SOAK VEHICLE FOR 12 HOURS MINIMUM OR 20 HOURS MAXIMUM

Soak:
1 hour 76° ≤ temp ≤ 86°F
10-18 hours 60° ≤ temp ≤ 86°F
1 hour 76° ≤ temp ≤ 86°F

Soak period started __________ AM/PM

IMMEDIATELY PRECEDING LAST HOUR OF SOAK DRAIN FUEL THEN FILL FUEL TANK TO 40% VOLUME WITH TEMPERATURE-CONDITIONED TEST FUEL. AT 60° ± 2°F

Fuel Tank Capacity ______

Volume of Fuel Added ______

COLLECT FUEL SAMPLE AND STORE.

Fuel Sample No.__________

Tech. Sig.______________________

PUSH CAR INTO SHED AND HEAT FUEL FROM 60° to 84° ± 2°F IN 60 MINUTES RECORD FULL TANK TEMPERATURE ON STRIP CHART RECORDER.

Soak period ends ________ AM/PM

Lab. Mgr.______________________

CALIBRATE EQUIPMENT

SET ROADLOAD HORSEPOWER AND INERTIA WITH NON-TEST VEHICLE

RDHP ______________

INERTIA ____________ lbs.

Add 10% load for A/C: Yes____ No____

Tech. Sig.______________________

RUN COLD START FTP EMISSIONS TEST. RECORD FUEL TANK TEMPERATURE AND AMBIENT TEMPERATURE

FIGURE 2.6-1
(Continued)

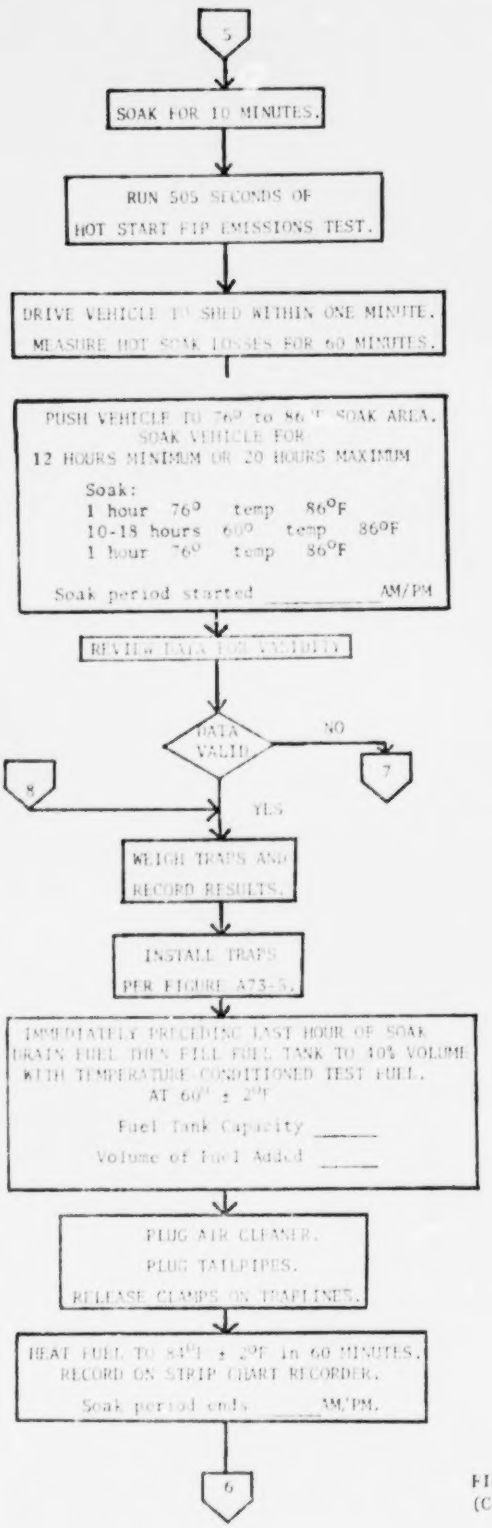

5
SOAK FOR 10 MINUTES.
RUN 505 SECONDS OF
HOT START FTP EMISSIONS TEST.
DRIVE VEHICLE TO SHED WITHIN ONE MINUTE.
MEASURE HOT SOAK LOSSES FOR 60 MINUTES.
PUSH VEHICLE TO 76° to 86°F SOAK AREA.
SOAK VEHICLE FOR
12 HOURS MINIMUM OR 20 HOURS MAXIMUM
Soak:
1 hour 76° temp 86°F
10-18 hours 60° temp 86°F
1 hour 76° temp 86°F
Soak period started __________ AM/PM
REVIEW DATA FOR VALIDITY
DATA VALID
NO
7
8
YES
WEIGH TRAPS AND
RECORD RESULTS.
INSTALL TRAPS
PER FIGURE A73-5.
IMMEDIATELY PRECEDING LAST HOUR OF SOAK
DRAIN FUEL THEN FILL FUEL TANK TO 40% VOLUME
WITH TEMPERATURE CONDITIONED TEST FUEL.
AT 60° ± 2°F
Fuel Tank Capacity _____
Volume of Fuel Added _____
PLUG AIR CLEANER.
PLUG TAILPIPES.
RELEASE CLAMPS ON TRAPLINES.
HEAT FUEL TO 84°F ± 2°F in 60 MINUTES.
RECORD ON STRIP CHART RECORDER.
Soak period ends _____ AM/PM.
6

FIGURE 2.6-1
(Continued)

Tech Sig.________________________________

Tech. Sig.________________________________

Data Valid Yes____ No____

Lab. Mgr.________________________________

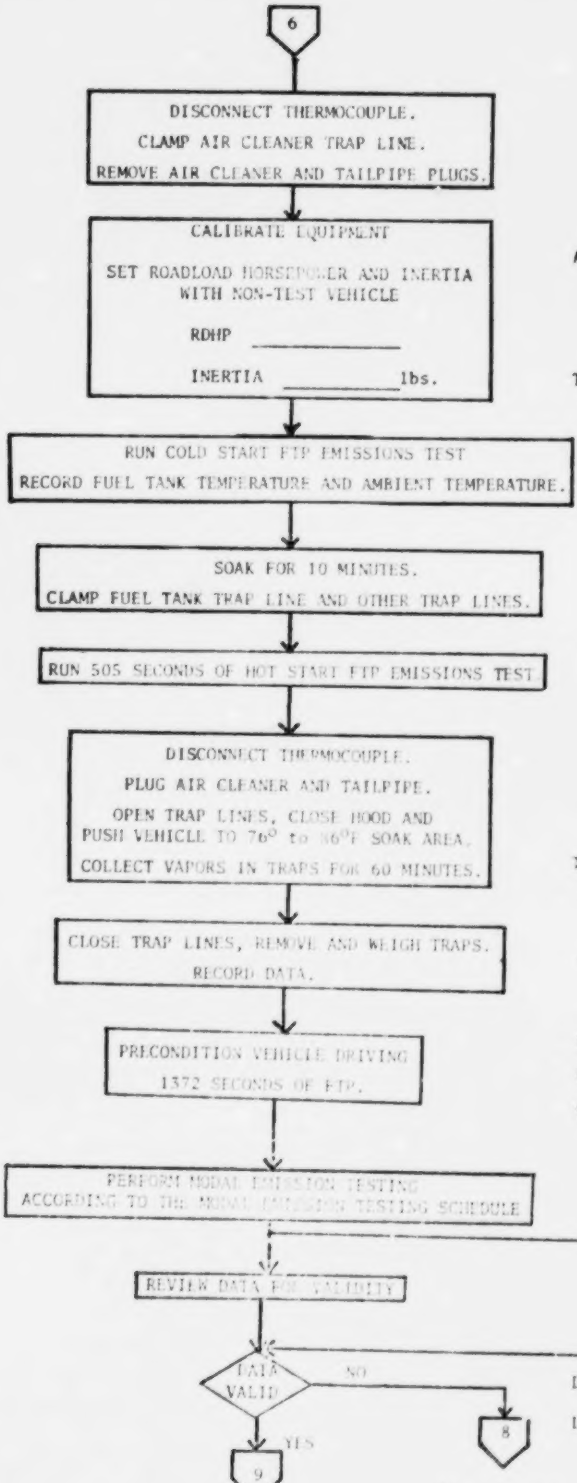
Tech Sig.________________________________

Start Diurnal Soak and Collect Evaporative Emissions

Time___________am/pm

Tech. Sig.________________________________

Tech. Sig.________________________________


6
DISCONNECT THERMOCOUPLE.
CLAMP AIR CLEANER TRAP LINE.
REMOVE AIR CLEANER AND TAILPIPE PLUGS.
CALIBRATE EQUIPMENT
SET ROADLOAD HORSEPOWER AND INERTIA WITH NON-TEST VEHICLE
RDHP ____________
INERTIA __________ lbs.
RUN COLD START FTP EMISSIONS TEST
RECORD FUEL TANK TEMPERATURE AND AMBIENT TEMPERATURE.
SOAK FOR 10 MINUTES.
CLAMP FUEL TANK TRAP LINE AND OTHER TRAP LINES.
RUN 505 SECONDS OF HOT START FTP EMISSIONS TEST
DISCONNECT THERMOCOUPLE.
PLUG AIR CLEANER AND TAILPIPE.
OPEN TRAP LINES, CLOSE HOOD AND PUSH VEHICLE TO 76° to 86°F SOAK AREA.
COLLECT VAPORS IN TRAPS FOR 60 MINUTES.
CLOSE TRAP LINES, REMOVE AND WEIGH TRAPS.
RECORD DATA.
PRECONDITION VEHICLE DRIVING 1372 SECONDS OF FTP.
PERFORM MODAL EMISSION TESTING ACCORDING TO THE MODAL EMISSION TESTING SCHEDULE
REVIEW DATA FOR VALIDITY
RECORD TUNE PARAMETERS
DATA VALID
NO
YES
8
9

Add 10% load for A/C: Yes____ No____

Tech. Sig. ______________________________

Tech. Sig. ______________________________

Tech. Sig. ______________________________

Start Miles __________

End Miles __________

Tech. Sig. ______________________________

Data valid Yes____ No____

Lab. Mgr. ______________________________

FIGURE 2.6-1
(Continued)

preconditioned on city streets for about ten minutes to purge the fuel system. Following preconditioning, the soak period started for 12 hours minimum to 20 hours maximum. During the last hour of the soak period, the vehicle's fuel tank was drained and refilled to 40 percent volume with temperature conditioned (60 ± 2°F) test fuel. The fuel tank was heated to 84 ± 2°F in exactly 60 minutes, and the temperature rise recorded on strip charts as the initial portion of the dirunal evaporative emission test procedure.

The need to test each vehicle in the as-received condition was of paramount consideration during the vehicle preparation procedures. Because of this important program need, the measurements of vehicle operating parameters such as basic ignition timing, point dwell, idle speed, and idle mixture were performed on the vehicle following exhaust, evaporative, and modal emission tests. In order to prevent any possibility of technicians upsetting any of the as-received adjustments, instruments were not attached to the test vehicles prior to the exhaust emission test. A visual examination of the underhood area was performed in order to determine that gross malfunctions of the running gear would not occur. Also a visual examination of the exhaust system was performed in order to determine if any leaks existed.

2.6.2 Equipment Preparation

All test equipment was thoroughly warmed up, calibrated and inspected for proper operation prior to the performance of any tests. The chassis dynamometer was thoroughly warmed up using a non-test vehicle, if the dynamometer had not been used during the previous two hours. During the dynamometer warmup procedure, inertia and dynamometer road-load horsepower were properly set for the following test car. In addition, the dynamometer speed indicator was calibrated and checked against the driver's aid to ensure that both speed indications were identical.

The exhaust analysis console was normally left operating during the daylight hours. All instruments were left in a standby status with either dry nitrogen or dry air continuously flowing through the instruments. Therefore, it was normally not necessary to perform any preparation on the exhaust analysis console prior to testing with the exception of the routine calibration procedures. In the event that the exhaust analysis console or any instruments were shut down for any length of time prior to testing, a minimum warmup period of one-half hour was required prior to use. The NO_x instrument ozone generator was normally turned off each night. About ten minutes warmup time was provided prior to use of the NO_x instrument. Normally, however, this warmup time occurred while other instruments were being calibrated or while the vehicle was being prepared for testing.

The constant volume sampler does require approximately one-half hour warmup prior to testing to ensure precise measurements, if it has not been operated during the previous 24-hour period. If operation was performed in the last 24 hours, less warmup time was required. The CVS was equipped with controls to permit rapid heating of the heat exchanger and blower. The constant volume sampler was turned on and operated early in the morning to ensure that the temperature stabilized by the time testing was initiated for the day. The CVS was connected to the vehicle used for dynamometer warmup to warm the flexible duct and mixing plenum.

No specific preconditioning procedures were utilized for the SHED with the exception of ensuring that high background hydrocarbon levels were not present in the SHED prior to testing. The flame ionization detector utilized for SHED hydrocarbon determinations was always warmed up and calibrated prior to use.

2.6.3 Federal Exhaust Emission Test

All cold start exhaust emission tests were performed in accordance with the procedures stipulated in 37 Federal Register 221, Sections 85.075-9 through 85.075-24, and as amended in 38 Federal Register 124, except that the hot start test was run the full 1372 seconds and separate sample and background bags were collected for the 505 and 867 second portions of the hot start test.

2.6.4 Modal Emission Tests

For those vehicles subjected to the exhaust emission and modal emission testing, the Federal Test Procedure (FTP) was carried out as described above, and the modal emission test immediately following in accordance with Figure 2.6-2. For the modal emission portion of the test procedures, 75-1972 through 1974 model-year vehicles were tested on 16 acceleration and deceleration modes. These modes consisted of accelerations and decelerations between all possible combinations of the following seven speeds: 0 mph, 5 mph, 10 mph, 15 mph, 30 mph, 45 mph, and 60 mph. An average acceleration or deceleration rate for each mode observed in a study survey conducted in the Los Angeles basin was used during operation in 20 of the modes. Six of the modes were repeated using acceleration or deceleration rates higher or lower than the average rate in order to determine the effect of acceleration and deceleration rates on emissions. The combined 32 modes are illustrated in Figure 2.6-3.

A dilute CVS exhaust gas sample was continuously monitored and recorded on strip chart recorders (HC, CO, CO_2 and NO_x). Each mode change event was marked on the strip charts. The HC, CO, CO_2 and NO_x emission values were then determined by analyses of the strip charts. The mass emission and fuel economy values during each mode were calculated using the integrated exhaust concentration, background concentration, CVS mass flow rate, and distance traveled during each mode.

In addition to continuous sampling and analysis of vehicle effluents during the acceleration-deceleration modes, the CVS dilute bag sampling technique was used to collect emissions from the entire sequence including the short steady states connecting each mode. The mass emissions obtained by this method are referred to as the modal bag results.

MODAL EMISSIONS TEST PROCEDURES

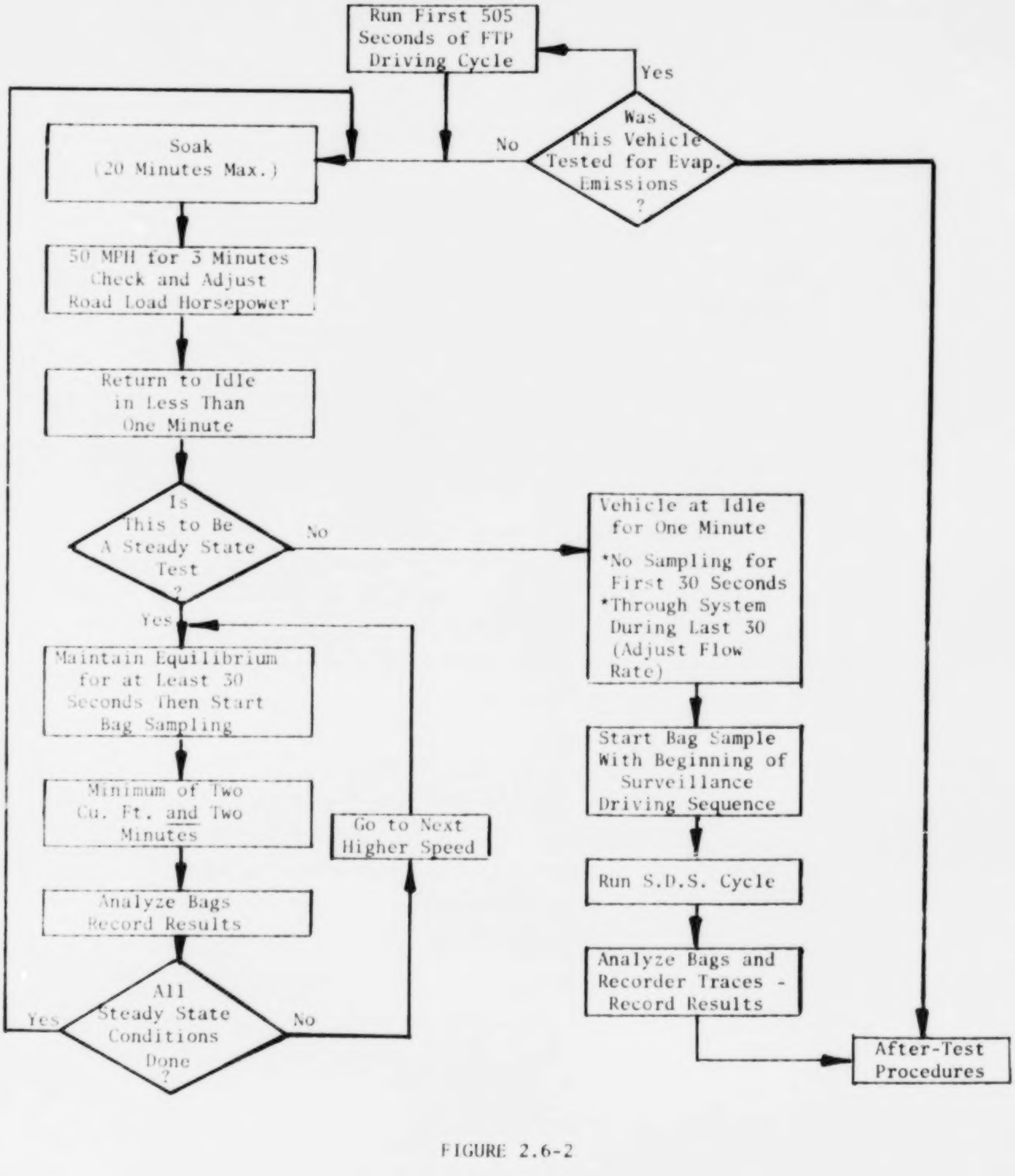

Run First 505 Seconds of FTP Driving Cycle
Yes
No
Was This Vehicle Tested for Evap. Emissions ?
Soak (20 Minutes Max.)
50 MPH for 3 Minutes Check and Adjust Road Load Horsepower
Return to Idle in Less Than One Minute
Is This to Be A Steady State Test ?
No
Yes
Vehicle at Idle for One Minute
*No Sampling for First 30 Seconds
*Through System During Last 30 (Adjust Flow Rate)
Maintain Equilibrium for at Least 30 Seconds Then Start Bag Sampling
Minimum of Two Cu. Ft. and Two Minutes
Go to Next Higher Speed
Start Bag Sample With Beginning of Surveillance Driving Sequence
Run S.D.S. Cycle
Analyze Bags Record Results
Analyze Bags and Recorder Traces - Record Results
Yes
All Steady State Conditions Done ?
No
After-Test Procedures

FIGURE 2.6-2

ACCELERATION/DECELERATION DRIVING SEQUENCE

Mode					
No.	Type	Speed Range (mph)	Time in Mode (sec)	Average Speed (mph)	Distance (miles)
1	Accel	0-30	12	19.29	.0643
2	Decel	30-0	16	15.73	.0699
3	Accel	0-15	8	9.95	.0221
4	Accel	15-30	11	23.76	.0726
5	Accel	30-45	13	38.24	.1381
6	Decel	45-30	12	37.44	.1248
7	Accel	30-60	17	46.67	.2204
8	Decel	60-45	12	52.38	.1746
9	Accel	45-60	14	53.07	.2064
10	Decel	60-15	30	39.64	.3304
11	Accel	15-60	26	44.28	.3198
12	Decel	60-0	21	32.40	.1890
13	Accel	0-60	32	39.17	.3482
14	Decel	60-30	23	46.20	.2952
15	Decel	30-15	9	22.35	.0559
16	Decel	15-0	8	6.89	.0153
17	Accel	0-45	22	29.88	.1826
18	Decel	45-15	16	30.40	.1351
19	Accel	15-45	18	31.38	.1569
20	Decel	45-0	19	23.53	.1242
21	Accel	0-60	25	39.47	.2741
22	Decel	60-0	28	32.80	.2551
23	Accel	0-30	15	18.74	.0781
24	Accel	30-60	25	45.75	.3177
25	Decel	60-30	18	46.40	.2320
26	Decel	30-0	10	14.51	.0403
27	Accel	0-60	38	38.79	.4095
28	Decel	60-0	35	33.01	.3209
29	Accel	0-30	18	18.56	.0928
30	Accel	30-60	21	45.98	.2682
31	Decel	60-30	14	45.57	.1772
32	Decel	30-0	13	15.26	.0551
				TOTAL	5.7668
				Cruises	4.0614
					9.8282

FIGURE 2.6-3

In addition to the modal emission tests, steady state exhaust emissions for HC, CO, CO_2 and NO_x were obtained at 0 mph, 5 mph, 10 mph, 15 mph, 30 mph, 45 mph, and 60 mph using the dilute CVS bag collection technique. At each speed, equilibrium was maintained for at least 30 seconds before sampling was started. A minimum sample volume of two cubic feet and a minimum sample time of two minutes were obtained.

2.6.5 Evaporative Emission Test Procedure

In this program, evaporative emissions were measured during two procedures: (1) the SAE Sealed Housing for Evaporative Determinations (SHED) and (2) the Federal activated charcoal canister technique. A subsample of twenty 1973 model-year vehicles were selected in advance by the EPA Project Officer and AESi for the Los Angeles test site. The SHED procedure used for evaporative emission testing was that stipulated in SAE Technical Report J171 entitled "Measurement of Fuel Evaporative Emissions from Gasoline Powered Passenger Cars and Light Trucks Using the Enclosure Technique." An exception to the procedure was the 1975 FTP, rather than the specified 7-mode cycle. The activated charcoal canister evaporative emission test procedure was in general accordance with 37 Federal Register 221, Sections 85.075-11 through 85.075-13 and 85.075-21.

2.6.5.1 SHED: After the vehicle tank was filled to the specified 40 percent volume with temperature conditioned test fuel and the filler cap installed, silicone rubber heating pads were placed around the tank below the fuel level. The heating pads were affixed by the use of tape or heavy duty permanent magnets. In accordance with the SHED procedure, the temperature of the fuel was elevated at a relatively uniform rate to attain the desired temperature of 84°F in one hour. During the 60-minute diurnal soak, the SHED enclosure temperature and hydrocarbon emission level were recorded as well as the internal fuel tank temperature and barometric pressure.

Following diurnal loss measurements, the test vehicle was pushed onto the chassis dynamometer. The dynamometer was previously warmed up and adjusted to the correct inertia and horsepower settings. The Federal exhaust emission test procedure was then performed. However, only the cold start, consisting of the cold transient and cold stabilized portions; the ten-minute soak; and the hot start, hot stabilized portions were performed. In all evaporative tests, the hot start, hot stabilized portions of the test were deleted. Immediately following the cold and hot start test, the vehicle was driven into the SHED, and the SHED was sealed for the hot soak loss measurement. During this portion of the evaporative emission test, frequent measurements of air temperature within the SHED were required. This was because certain cars had a tendency to heat the SHED more rapidly than others, and the maximum temperature of 90° could be exceeded rapidly unless cooling fans were directed against the external SHED walls.

Fuel samples were obtained using the bottom filling technique in sealed, plated sheet-metal containers. Proper fuel handling techniques were employed. Samples were carefully taken and stored in a refrigerator until fuel inspections were performed. The fuel inspections consisted of a determination of Reid Vapor Pressure by the ASTM method D 323, a distillation by the ASTM method D86, and the carbon/hydrogen ratio by gas chromatography.

2.6.5.2 Canister: Prior to the diurnal soak period and heating of the fuel tank from 60 to 84 ± 2°F in 60 minutes, activated charcoal canisters were affixed to all fuel system external vents, permitting collection of effluent vapors during the course of the prescribed test. Carbon canisters were also attached to the vehicle's evaporative charcoal canister vent in those cases where a vent existed, and also to the vehicle's fuel tank filler cap if the fuel system pressure check indicated a leaking cap. Evaporative emissions were trapped during the diurnal and hot soak portions of the test, and running losses were also collected during the FTP from any vented fuel system source that was not purged by engine operation. All other canisters were clamped tight during the FTP. During the diurnal and hot soak portions of the test, the vehicle tail pipe and inlet to the air cleaner were plugged air tight.

2.6.6 Daily Test Schedule

The following is a summary of the daily test schedules (illustrated in Figure 2.6-1) for those vehicles subjected to exhaust emission tests; exhaust emission and modal tests; and exhaust emission, modal, and evaporative emission tests. Evaporative emission tests were not performed at the St. Louis test site. The following procedures were followed for exhaust emission tests at the Los Angeles and St. Louis test sites:

1. Vehicle was received by the laboratory, and a cursory inspection was made to ensure that the vehicle conformed to the test vehicle matrix, and to check for a tight exhaust system and safety of vehicle operation.
2. Fuel tank was drained and test fuel was added to 40 percent fuel tank volume, followed by 10 minutes of driving on city streets.
3. Vehicle soaked for 12 hours minimum to 20 hours maximum.
4. Following the soak period, a Federal cold-start test was performed. The cold start consisted of sample and background bag collection for the cold transient and cold stabilized portions.
5. A 10-minute soak with the engine off was performed.
6. A Federal hot-start test was performed, involving the collection of separate background and sample bags for each of the hot transient and hot stabilized portions.

7. Following testing, appropriate vehicle information such as basic ignition timing, point dwell, idle RPM, idle CO, and idle hydrocarbons were measured and recorded.

The following procedure was followed for exhaust and modal emission tests at the Los Angeles and St. Louis test sites:

1. The vehicle was received by the laboratory, and a cursory inspection was made to ensure that the vehicle conformed to the test vehicle matrix, and to check for a tight exhaust system and safety of vehicle operation.

2. The fuel tank was drained and test fuel was added to 40 percent fuel tank volume, followed by 10 minutes of driving on city streets.

3. The vehicle soaked for 12 hours minimum to 20 hours maximum.

4. Following the soak period, a Federal cold-start test was performed. The cold start consisted of separate sample and background bag collection for the cold transient and cold stabilized portions.

5. A 10-minute soak with the engine off was performed.

6. A Federal hot-start test was performed, involving the collection of separate background and sample bags for each of the hot transient and hot stabilized portions.

7. A soak period of no longer than 20 minutes followed the FTP to allow for analysis of CVS bag data.

8. The vehicle was accelerated to 50 mph and this steady state speed was maintained for three minutes. During this time, the dynamometer horsepower setting was adjusted as necessary.

9. Steady state exhaust emissions were measured at 0, 5, 10, 15, 30, 45 and 60 mph.

10. The soak and preconditioning sequences (Items 7 and 8) were repeated, and modal emission tests were run.

11. Following testing, appropriate vehicle information such as basic ignition timing, point dwell, idle RPM, idle CO, and idle hydrocarbons were measured and recorded.

The following procedure was followed for exhaust, modal and evaporative emission tests at the Los Angeles test site:

1. The vehicle was received by the laboratory, and a cursory inspection was made to ensure that the vehicle conformed to the test vehicle matrix, and to check for a tight exhaust system and safety of vehicle operation.

2. The fuel tank was drained, pressure tested, and two gallons of test fuel were added. The vehicle was then run for 10 minutes on city streets.

3. The vehicle was soaked for 12 hours minimum to 20 hours maximum. During the last hour of test fuel, the tank was drained and refilled to 40 percent volume with temperature conditioned test fuel and then the fuel tank was heated from 60°F to 84 ± 2°F in 60 minutes in the SHED.

4. The 1975 Federal cold-start exhaust emission test was then performed within 15 minutes after removal of the vehicle from the SHED. The hot stabilized portion of the hot-start was not performed.

5. Immediately following the hot transient portion of the 1975 FTP, the vehicle was driven into the SHED at as low an engine load as possible. The time allowed for removal of the vehicle from the dynamometer to engine shut-off in the SHED was approximately one minute.

6. Hot soak losses were measured for 60 minutes.

7. The vehicle was again soaked for 12 hours minimum to 20 hours maximum. During the soak, charcoal canisters were affixed to the vehicle's fuel system vents. During the last hour of the test, the vehicle tail pipe was plugged, and the fuel tank drained and refilled to 40 percent volume with temperature conditioned fuel. Trap vent lines were opened and the fuel tank was heated from 60°F to 84 ± 2°F in 60 minutes.

8. Trap lines that would be purged during the FTP test were closed and the 1975 FTP followed.

9. Immediately following the hot transient portion of the 1975 FTP, trap lines were opened and the vehicle was allowed to hot soak with the hood down for 60 minutes at an ambient temperature of 76-86°F. Traps were then disconnected and weighed.

10. The vehicle was then preconditioned by driving the first 505 seconds of the FTP.

11. A soak period of no longer than 20 minutes followed the 505 seconds of the FTP to allow for analysis of CVS bag data.

12. The vehicle was accelerated to 50 mph and this steady state speed was maintained for three minutes. During this time, the dynamometer horsepower setting was adjusted as necessary.

13. Steady state exhaust emissions were measured at 0, 5, 10, 15, 30, 45 and 60 mph.

14. The soak and preconditioning sequences (Items 11 and 12) were repeated, and modal emission tests were run.

15. Following testing, appropriate vehicle information such as basic ignition timing, point dwell, idle RPM, idle CO, and idle hydrocarbons were measured and recorded.

2.7 DATA HANDLING

2.7.1 Data Collection

AESi developed several test data forms for use in such programs. A Test Data Sheet form was developed for the program as shown in Figure 2.7-1. This particular form is arranged in keypunch format. Evaporative emissions were measured in general accordance with the Sealed Housing for Evaporative Determinations (SHED) technique outlined in SAE Technical Report J171, September, 1970. The data form used is shown in Figure 2.7-2. Evaporative emissions determined by trapping the vehicle's fuel system vented hydrocarbons was recorded as total grams increase of the activated charcoal canister.

Several other forms were used for total system quality control. Figure 2.7-3 is an example of a Daily Instrument and CVS System Check form. In conjunction with the Daily Check form is the CVS Propane Recovery form shown in Figure 2.7-4. A Weekly Check form, Figure 2.7-5, was designed to ensure that each instrument curve is within limits of the curve originally developed. The Weekly Check was also used as the Monthly Curve Inspection form. This form also provides for an NO_x converter check, a 100% wet CO_2 response check of the CO instrument and calibration curve update information. AESi facilities also used a seven day ambient weather station chart, shown in Figure 2.7-6.

For verification of valid instrument curve development, AESi used a Calibration Curve Result form, Figure 2.7-7. The use of this form allowed AESi the flexibility to accept or reject instrument curve data before entry into the computer. Instrument curves were developed on a National CSS IBM 370 and were generated using a second order polynomial equation of least squares.

LICENSE # 127GOJ VIN 4Y87U3H421096

TEST DATA SHEET

	PRJ NO	CAR NO.	RUN NO.	DATE	TIME	YR	MAKE	MODEL	VTP
01	2090	00013	22008	082374	1120	73	BUICK	RIVIERA	00

	CID	BBL	TRN	INRT	CURB WT	GVW		RDHP	DB	WB	BARO	CYL	A/C	EVP	EXH	PCV
01	455	4	6	5000	—	—	02	14.7	80.0	67.5	30.10	8	1	2	1	1

	ODOMR	FLC	FX	FV	HUCF	PIC	TEC	DRI	TVP	ENG	I.O		IRPM	D N	DWEL
02	15190	26.0	1	1	.	ACE	ACE	GST	01	02	1	03	600	D	32.0

	IGNT A	RPM	TTAD	MECA		HC	CO	CO2	NO	NOx	NO2
03	+4.0	600.0	.	.	04	40	0.1			40	12.7

COLD TRANSIENT:		HC		CO		CO2		NOx		NO					
	R	DEF.	R	DEF.	R	DEF.	R	DEF.	R	DEF.	TEMP	PRESS	COUNT	DELTA P	MPH
11 S	2	45.0	6	74.1	3	62.1	5	33.2	5	25.8	120	11.60	9651	15.0	.
12 B	2	1.9	6	0.8	3	2.1	5	0.2	5	0.1					

COLD STABILIZED:	R	DEF.	R	DEF.	R	DEF.	R	DEF.	R	DEF.	TEMP	PRESS	COUNT	DELTA P	MPH
13 S	1	51.0	6	13.1	3	46.0	4	36.0	4	32.1	120	11.60	25911	15.0	.
14 B	1	6.8	6	0.0	3	1.8	4	0.1	4	0.0					

HOT TRANSIENT:		HC		CO		CO2		NOx		NO					
	R	DEF.	R	DEF.	R	DEF.	R	DEF.	R	DEF.	TEMP	PRESS	COUNT	DELTA P	MPH
15 S	1	98.1	6	19.3	3	56.9	4	83.0	4	69.8	120	11.60	9489	15.0	.
16 B	1	6.0	6	0.2	3	1.9	4	0.0	4	0.0					

HOT STABILIZED:	R	DEF.	R	DEF.	R	DEF.	R	DEF.	R	DEF.	TEMP	PRESS	COUNT	DELTA P	MPH
17 S		.		.		.		.		.		.			.
18 B		.		.		.		.							

1037

FIGURE 2.7-1

PIC

Preconditioning Completed

Data Reviewed

Sq. No.	Car No.	Prj. No.	Site	Date
	0013	2090	WTM	8/23/74

EVAPORATIVE TEST SHED RESULTS

P_a 30.05 "Hg, Diurnal, D

Time	Enclo. Temp, Te	Internal Tank Temp	FID, Defl. ppm$_1$	AESi range
BKG	75°	—	1.3	2
Initial	75°	60°	1.3	2
5 min.	75°	62°	14.0	2
10	75°	64°	20.6	2
15	75°	66°	24.3	2
20	76°	68°	29.2	2
25	76°	70°	33.3	2
30	76°	72°	39.5	2
35	76°	74°	46.0	2
40	76°	75°	49.0	2
45	76°	77°	57.2	2
50	76°	79°	64.4	2
55	76°	80°	69.0	2
60	76°	83°	86.0	2

P_a 30.06 "Hg, Hot Soak, H

Enclos. Temp, Te	Internal Tank Temp.	FID Defl. ppm$_2$	AESi range
80°	96°	1.5	2
80°	96°	2.9	2
91°	96°	13.5	2
82°	96°	21.0	2
82°	96°	35.6	2
82°	97°	42.0	2
83°	97°	44.0	2
83°	97°	46.8	2
83°	97°	51.0	2
83°	97°	53.1	2
84°	97°	55.5	2
83°	97°	57.2	2
83°	97°	58.8	2
83°	97°	59.8	2
.			

IBP ________ : RVP, psi ________ : H/C Ratio ________ : Type Fuel Used ________

(12 + ______ H/C Ratio) 0.03422 •(ppm$_1$ _____ -BKG ______)

P_a ______ "Hg ÷ Te ______ °R = HC Mass ________ grams, D

(12 + ______ H/C ratio) 0.03422 •(ppm$_2$ _____ -BKG ____)

P_a ______ "Hg ÷ T_e ______ °R = HC mass ____ grams, H

FIGURE 2.7-2

[illegible] NO.	SITE	DATE
	AESI WTM	1974

DAILY EAC, CVS & SHED

EAC

DATE	LEAK CH.			FID		FID PRES.			CO			[illegible]			CO_2			[illegible]				[illegible]		PID
	FID	CO	CO_2	ZRO	SPN	SAM	FUL	AIR	SN	ZRO	TUN	SN	ZRO	TUN	SN	ZRO	TUN	CAL	SAM PRES	VAP	[illegible]	%	NO.	
7-29	0.0	0.0	0.0	850	424	3.0	25.0	12.0	192	348	64.7	–	–	–	34	734	73.2	366	7.3	8.0	2.0	90.6	093	ACE
7-30	0.0	0.0	0.0	833	509	3.0	25.0	12.0	176	315	64.9	–	–	–	34	925	73.5	467	7.3	8.0	2.0	91.4	094	ACE
7-31	0.0	0.0	0.0	825	876	3.0	25.0	12.0	194	292	65.0	–	–	–	34	864	73.5	350	7.2	9.0	2.0	92.3	095	ACE
8-1	0.0	0.0	0.0	853	879	3.0	25.0	12.0	191	349	65.0	–	–	–	34	999	74.0	403	7.1	8.5	2.0	95.7	096	ACE
8-2	0.0	0.0	0.0	760	858	3.0	25.0	12.0	195	258	64.9	–	–	–	34	585	74.0	210	7.2	8.5	2.0	95.4	097	ACE
8-5	0.0	0.0	0.0	831	598	3.0	25.0	12.0	190	317	65.0	–	–	–	34	612	74.5	234	7.2	8.3	2.0	95.3	098	ACE
8-6	0.0	0.0	0.0	818	502	3.0	25.0	12.0	198	279	65.0	–	–	–	34	691	74.3	227	7.2	8.5	2.0	96.5	099	ACE

CVS

DATE	LEAK CH.							PRT					[illegible]	
	B-1	B-2	S-1	S-2			CONT	Gp	CAL Gp	Δ	TF	NO.	50 [illegible]	
7-29	0.0	0.0	0.0	0.0			0.0	15.02	14.90	.12	.80	369	50.0	
7-30	0.0	0.0	0.0	0.0			0.0	12.85	12.95	.10	+.91	370	50.0	
7-31	0.0	0.0	0.0	0.0			0.0	15.0	15.17	.17	+1.09	371	50.0	
8-1	0.0	0.0	0.0	0.0			0.0	12.98	13.19	.21	+1.61	372	50.0	
8-2	0.0	0.0	0.0	0.0			0.0	13.0	13.22	.22	+.02	313	50.0	
8-5	0.0	0.0	0.0	0.0			0.0	13.15	13.32	.17	+1.26	314	50.0	
8-6	0.0	0.0	0.0	0.0			0.0	13.21	13.41	.20	+1.52	375	50.0	

SHED

SHED FID		SHED FID PRES.			PID
ZRO	SPN	SAM	FUL	AIR	
					ACE
					ACE
					ACE
					ACE
					ACE
					ACE
					ACE

FIGURE 2.7-3

PRT

CVS PROPANE RECOVERY TEST NO. 386

2090	WTM	8-21-74
Prj.No.	Site	Date

FID DEFLECTIONS		PPM_C
S1	92.1	274.47
B1	3.0	9.53

TECH: Ace

E.T.: ______

Δ P: 15.0

$(-0.00136 \bullet T_A$ 76.0 $^{\circ}F + 13.6912) \bullet P_A$ 30.06 "Hg

$-P_p$ 11.6 "$H_2O \div T_p$ 580 $^{\circ}R \bullet 2.2454 \bullet$ NET 264.94 PPM_C

$\bullet V_o$ 0.304 $Ft.^3/Rev. \bullet 0.00001 \bullet N$ 12175 = HC MASS 15.06 GRAMS

+ PROPANE CYLINDER EMPTY 650.72

- PROPANE CYLINDER FULL 665.59 • 100 ÷ HC MASS = 1.29 % ERROR

☑ + GAIN

☐ - LOSS

Comments: 14.87 Δ = +.19

FIGURE 2.7-4

22 WTM

8-12-74

WEEKLY CHECK

INST	AUTO RANGE	RANGE	[illegible]		MID RANGE		MID RANGE		MID RANGE		MID						
			CONC.	DEF.	CONC.	DEF.	CONC.	DEF.	CONC.	DEF.	CONC.	DEF.	CONC.				
FID	1	10	2825	95.0										96.0	44031	8-12	JSJ
	2	100	917.59	85.0	469	42.9								85.9	H-3245	8-12	
	3	[illegible]	2662	89.6	1296	43.0								92.0	A-3528	8-12	
	4	1000	8519	85.0	4286	42.8								82.8	A-1523	8-12	
CO	2	2-H	44900	92.0	25880	62.6								84.2	A-9669	8-12	JSJ
	3	3-H	25880	85.0	2991	12.9								70.9	A-449	8-12	
	[illegible]	[illegible]	2991	95.0	1695	54.5								81.7	A-153677	8-12	
CO_2	2	2	79400	95.2	39260	58.8								81.0	A9669	8-12	JSJ
	3	3	39260	95.2	23630	64.4								80.6	A-153677	8-12	
NO-NO_x	4	100	94.0	93.8	45.9	46.3								74.0	A-4990	8-12	
	5	250	213.5	89.5	94.0	39.7								73.5	SG-289012	8-12	JSJ
	6	1000	954	95.3	435	44.3								85.0	A-5388	8-12	
	7	2000	1875	90.0	954	44.1								48.0	SG-2327	8-12	

	CONVERTER CHECK		
	DEF. START	DEF. END	TIME E.T.
NO			
NO_x			

	ZERO LEAK CHECK		
	DEF. START	DEF. END	TIME E.T.
FID			

	100% CO_2 DEF.	WET 100% CO_2
CO		

MASTER CURVE

EFF RUN # ____________

FIGURE 2.7-5

036

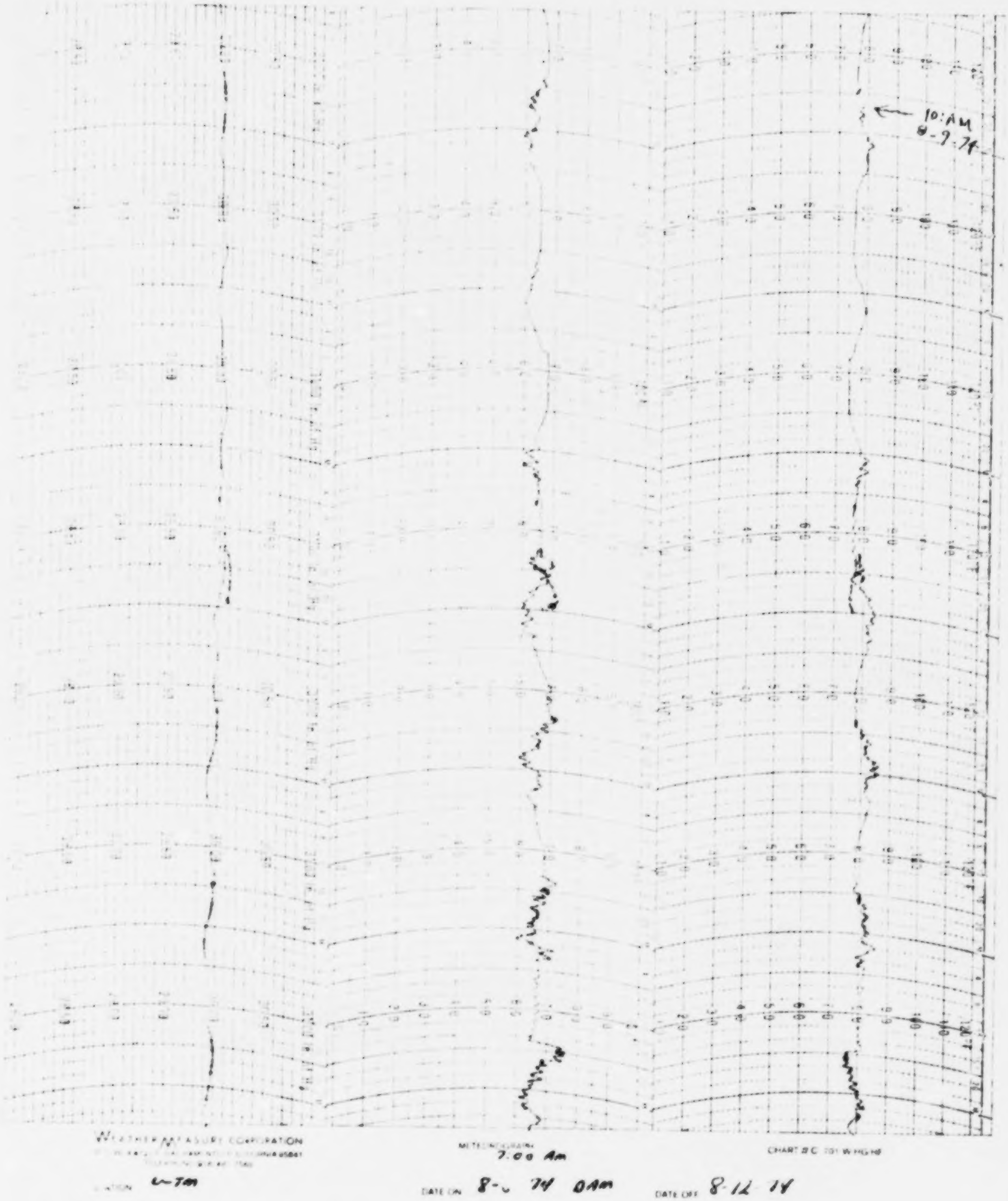

← 10:AM
8-9-74
WEATHER MEASURE CORPORATION
METEOROGRAPH
7:00 Am
CHART # C 701
STATION U-TM
DATE ON 8-6 74 8AM
DATE OFF 8-12-74

FIGURE 2.7-6

Figure 2.7-2

CCR

CALIBRATION CURVE RESULTS

Prj.No.	Site	Date
	SrL	8-14-74

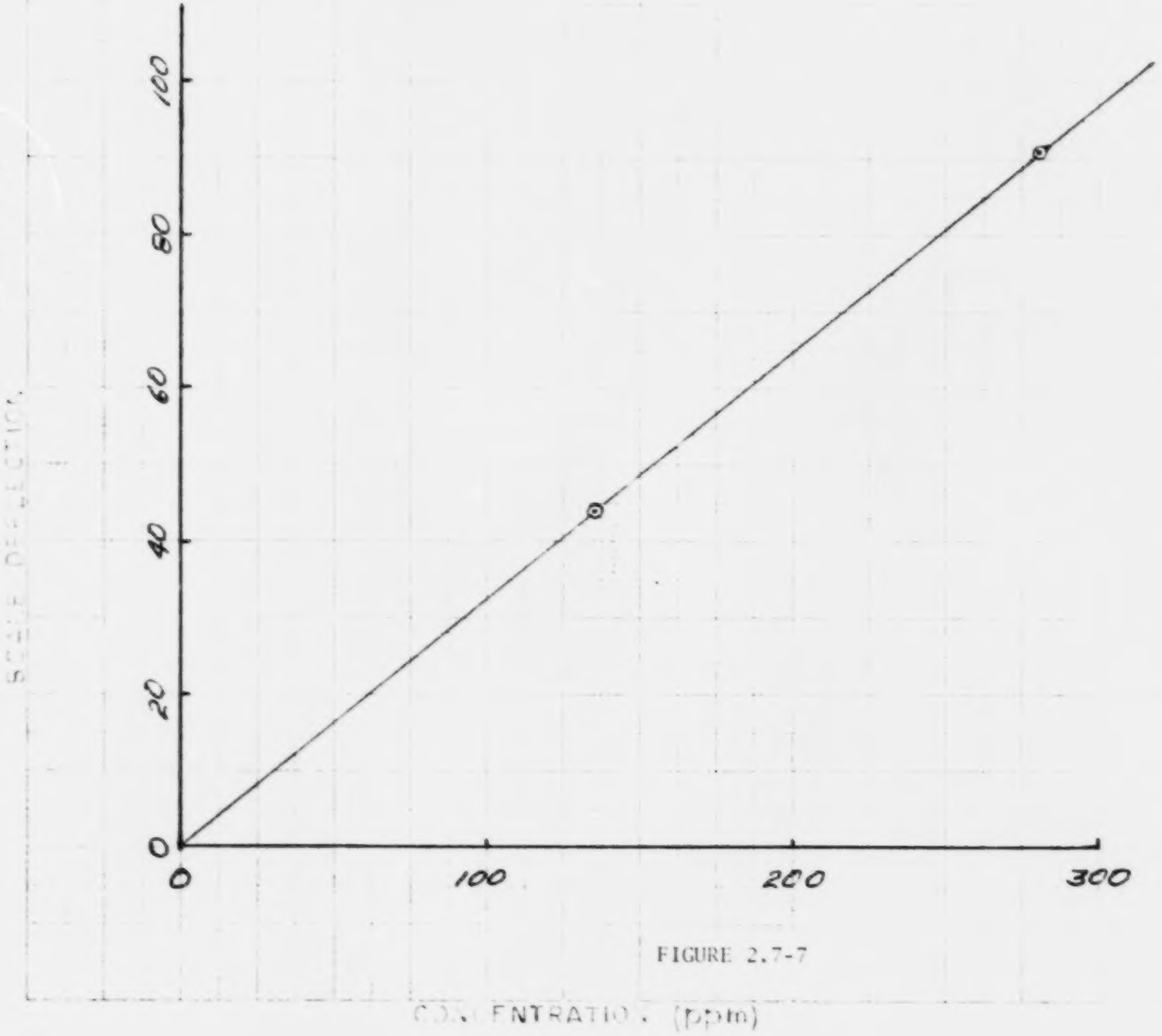


FIGURE 2.7-7

EFFECTIVE DATE: 8-14-74

EFFECTIVE RUN: 21412

INSTRUMENT: FID

RANGE CODE: 1

INSTRUMENT RANGE: 0-300

DEFL.	CONC. (ppm)	CYL. NO.
91.0	280.1	A 9332
44.0	135.5	A 10620

AESi used the data accumulation system at each test site that allowed for rapid review of data for a particular test vehicle. Following verification of vehicle acceptability, AESi used a packet of file folders containing all data pertaining to the total testing and inspection procedures for each test vehicle. This packet contained the following items:

1. Selected Vehicle Owner Contact form
2. Emission Testing Procedures Flow Chart (Figure 2.6-1)
3. Test Data Sheet form which contained results of all test data
4. Questionnaire

A copy of this material was filed at the test site and the original sent to the AESi corporate office for data processing and filing. Also, a separate common file for tests conducted during a certain period of time was inserted in the on-site file and also at the AESi corporate office file. Examples of items contained in the common file are listed below:

1. CVS Flow Calibration
2. NO_x Converter Check Verification
3. Dynamometer coast-down calibration
4. Dynamometer speedometer and horsepower calibration
5. Weekly Laboratory Status Report
6. Copy of Weekly Check form
7. Weather Station Chart or Daily Ambient Plot
8. Instrument Curves
9. Daily Instrument and CVS Check form
10. CVS Propane Recovery form

2.7.2 Data Processing

Vehicle information, results of vehicle inspection, and emission test data as recorded on the Test Data Sheet were then forwarded to the Computer Sciences Department. This sheet included all required vehicle information such as the Federal vehicle identification number, test description, cubic inch displacement, number of carburetor venturis, type of transmission and inertia weight. Also included were certain inspection and maintenance data. Exhaust emission data were recorded in the form of instrument range and deflections for HC, CO, CO_2, NO_x and NO concentrations in the sample and background bags. Evaporative emission test results for all instruments were also forwarded to the Computer Sciences Department to be used in translating test deflections to concentrations. Modal emission dilute sample CVS strip sharts and steady state instrument deflection strip charts were integrated by hand. This consisted of reducing the area under each curve for each of the 32 modes to an average instrument deflection. Conversion of instrument deflection to concentrations and mass emissions was a computerized operation.

2.7.3 Calculation of Results

2.7.3.1 Exhaust Emissions: Results from the various test procedures performed during the program were calculated using well known techniques. The method for obtaining mass emissions, on a grams per mile basis, as specified in the 1972 and 1975 Federal Test Procedures, was generally used in accordance with EPA guidelines.

2.7.3.2 Modal Emissions: Continuous strip chart recordings were made during the 32-mode acceleration-deceleration driving schedule as well as a continuous dilute CVS sample of the 32 modes and connecting steady states. The continuous strip chart recordings were reduced by hand, integrating the mode-by-mode results to obtain instrument average deflection and subsequent computer reduced mass emissions on a grams per mile basis. The 32-mode emission values were combined with the seven steady states to obtain the calculated bag results. Figure 2.6-3 lists the 32 modes and the time in seconds per mode, average speed, and distance traveled (miles).

2.7.3.3 Fuel Economy: Fuel economy was calculated using the carbon atom mass balance technique. Fuel economy on a miles per gallon basis was calculated using this technique for the 1972 and 1975 FTP's and for the modal emission driving sequence. To calculate fuel economy, the following equations were used:

1972 FTP:

$$\text{mpg} = \left[\frac{2423}{.866\ \text{HC gm/mi} + .4288\ \text{CO gm/mi} + .2729\ \text{CO}_2\ \text{gm/mi}}\right]$$

1975 FTP:

$$\text{mpg} = \frac{2423}{7.5}\left[\frac{.43\ (\text{Bag } 1)}{866\ \text{HC gm/mi} + .4288\ \text{CO gm/mi} + .2729\ \text{gm/mi}}\right.$$

$$+ \frac{1\ (\text{Bag } 2)}{.866\ \text{HC gm/mi} + .4288\ \text{CO gm/mi} + .2729\ \text{gm/mi}}$$

$$\left. + \frac{.57\ (\text{Bag } 3)}{.866\ \text{HC gm/mi} + .4288\ \text{CO gm/mi} + .2729\ \text{gm/mi}}\right]$$

The derivation of the 1972 FTP is as follows:

$$\text{grams/mile } C_1 = \text{grams/mile HC} \times \frac{12.011}{13.86} = S_1$$

$$\text{grams/mile } C_1 = \text{grams/mile CO} \times \frac{12.011}{28.011} = S_2$$

$$\text{grams/mile } C_1 = \text{grams/mile } CO_2 \times \frac{12.011}{44.011} = S_3$$

$$\text{grams/mile fuel consumed} = \frac{S_1 + S_2 + S_3}{0.866}$$

Converting grams/mile to miles/gallon:

$$\text{miles/gallon} = \frac{\text{mile}}{\text{grams}} \times \frac{\text{grams}}{\text{lb}} \times \frac{\text{lb}}{\text{gallon}}$$

$$\text{miles/gallon} = \frac{(.866)(453.6)(6.17)}{S_1 + S_2 + S_3}$$

$$\text{miles/gallon} = \frac{2423}{.866\ \text{HC} + .4288\ \text{CO} + .2729\ CO_2}$$

In deriving the above equations, the following assumptions were made:

1. Carbon atoms emitted at vehicle tail pipe equal carbon atoms going into the engine as fuel.
2. Oil consumption carbon atoms emitted are negligible.
3. Carbon/Hydrogen ratio of fuel is $CH_{1.85}$. This will vary depending on fuel hydrocarbon composition.
4. Fuel consumed was 6.17 pounds per gallon. This will vary depending on fuel hydrocarbon composition.
5. Fuel hydrocarbons not measured (e.g., fuel oxygenates such as formaldehyde and higher molecular weight aldehydes) were negligible.

2.7.3.4 **Evaporative Emissions**: For calculating SHED evaporative emissions, the weighted average hydrogen/carbon (HC) atom ratio of the initial boiling point to 130°F vapor fraction of the test fuel was determined by use of a chromatographic technique. A squalene column was used to produce thirty-three chromatographic peaks. Using data from a paper by Maynard and Sanders[*], and a known sample of natural gas, the eluted peaks were identified and the mole percents determined. The H/C ratios were calculated from the respective chemical compositions.

The following formula was used to compute the weighted average H/C ratio for each vapor sample:

$$\text{Fuel H/C ratio} = \frac{\sum_{i=1}^{33} (X_i \cdot H/C_i)}{100}$$

where X_i represents the mole percent of each individual fuel component and H/C_i represents the H/C ratio of each individual component. Evaporative emissions were calculated in accordance with SHED procedure (SAE J171). Summary results of evaporative emission tests for the SHED and canister techniques are highlighted in Table 11. Individual evaporative emission test results are presented in Appendix C.

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[*] J.B. Maynard and W.N. Sanders, "Determination of the Detailed HC Composition and Potential Atmospheric Reactivity of Full-Range Motor Gasolines." Shell Oil Company, Journal of the Air Pollution Control Association, July, 1969.

3. TEST RESULTS

3.1 DISCUSSION OF EXHAUST EMISSION AND FUEL ECONOMY TEST RESULTS

Tables 1 and 2 summarize the make and model-year vehicles selected (Table 1) and test vehicle characteristics by model year (Table 2).

3.1.1 Federal Test Procedures

Emission and fuel economy results by test location are presented in Tables 3-7 and 12. The basic exhaust emission results (grams per mile) and fuel economy (miles per gallon) versus the various parameters are shown below:

Table 3	Exhaust Emission Test Results Versus Model Year
Table 4	Vehicles Meeting Federal Standards
Table 5	1972 Vehicles Meeting 1972 Federal Standards
Table 6	1973 Vehicles Meeting 1973 Federal Standards
Table 7	1974 Vehicles Meeting 1974 Federal Standards
Table 12	Summary of Results of Replicate Testing on Twenty 1973 Model-Year Vehicles

A complete listing of Federal Test Procedure results on individual vehicles is presented in Appendix C by test site.

3.1.2 Modal Emissions

Modal emission test results by test location are presented in Tables 8, 9 and 10. The results are presented for exhaust emissions (grams per mile) and fuel economy (miles per gallon) for the 1972, 1973, and 1974 model-year vehicles. Appendix D presents a listing of modal results on individual vehicles by test site.

3.2 DISCUSSION OF EVAPORATIVE EMISSION TEST RESULTS

Evaporative emission test results are highlighted in Table 11. Results of the 20 individual vehicles tested in Los Angeles, California are presented in Appendix E. Since evaporative emission test vehicles were tested using two test techniques, the 1975 test procedure was performed as a portion of each test. This resulted in replicate exhaust emission tests on these vehicles, which are summarized in Table 12.

TABLE I

SUMMARY OF VEHICLE MAKES

for Los Angeles

	1967	1968	1969	1970	1971	1972	1973	1974	TOTAL
AMC	1	1	1	0	1	0	1	0	5
Buick	1	1	1	1	2	2	2	1	11
Cadillac	1	1	0	0	1	0	1	0	4
Capri	0	0	0	0	0	0	1	0	1
Chevrolet	4	5	6	6	6	7	8	2	44
Chrysler	1	0	1	0	1	0	1	0	4
Datsun	0	0	0	0	1	1	1	0	3
Dodge	1	1	1	1	1	2	2	1	10
Ford	3	4	5	5	5	6	7	2	37
Lincoln	0	0	0	0	0	1	0	0	1
Mazda	0	0	0	0	0	0	1	0	1
Mercury	1	1	1	1	1	1	1	0	7
Oldsmobile	1	1	1	2	2	2	2	1	12
Opel	0	0	0	0	0	1	0	0	1
Plymouth	1	1	1	2	2	2	2	1	12
Pontiac	1	1	2	2	2	2	2	1	13
Toyota	0	0	0	1	1	1	1	0	4
Volkswagen	1	1	1	1	1	2	2	1	10
TOTALS	17	18	21	22	27	30	35	10	180

TABLE 1
(continued)

SUMMARY OF VEHICLE MAKES

for St. Louis

	1967	1968	1969	1970	1971	1972	1973	1974	TOTAL
AMC	1	1	1	0	1	0	1	0	5
Buick	1	1	1	1	2	2	2	1	11
Cadillac	1	1	0	0	1	0	1	0	4
Capri	0	0	0	0	0	0	1	0	1
Chevrolet	4	5	6	6	6	7	8	2	44
Chrysler	1	0	1	0	1	0	1	0	4
Datsun	0	0	0	0	1	1	1	0	3
Dodge	1	1	1	1	1	2	2	1	10
Ford	3	4	5	5	5	6	7	2	37
Lincoln	0	0	0	0	0	1	0	0	1
Mazda	0	0	0	0	0	0	1	0	1
Mercury	1	1	1	1	1	1	1	0	7
Oldsmobile	1	1	1	2	2	2	2	1	12
Opel	0	0	0	0	0	1	0	0	1
Plymouth	1	1	1	2	2	2	2	1	12
Pontiac	1	1	2	2	2	2	2	1	13
Toyota	0	0	0	1	1	1	1	0	4
Volkswagen	1	1	1	1	1	2	2	1	10
TOTALS	17	18	21	22	27	30	35	10	180

TABLE 2

SUMMARY OF TEST VEHICLE CHARACTERISTICS BY MODEL YEAR

Los Angeles

	1967	1968	1969	1970	1971	1972	1973	1974	TOTALS
Inertia Weights (lbs)									
2000	1	1	1	1	2	0	1	0	7
2250	0	0	0	0	2	4	1	1	8
2500	0	0	0	1	1	3	5	0	10
2750	0	0	0	1	1	0	0	0	2
3000	3	5	1	0	2	3	4	0	18
3500	8	5	10	8	8	7	5	2	53
4000	3	4	6	8	2	3	8	4	38
4500	1	2	3	2	6	6	6	2	28
5000	1	1	0	1	3	4	3	1	14
5500	0	0	0	0	0	0	2	0	2
Engine Displacement (cubic inches)									
Under 251	3	4	2	4	9	9	11	1	41
251-330	8	8	7	4	4	5	7	2	47
331-399	4	3	10	9	5	8	9	5	53
Over 399	2	3	2	5	9	8	8	2	39
Number of Engine Cylinders									
4	1	1	1	2	5	7	7	1	25
6	2	3	1	2	4	2	4	0	18
8	14	14	19	18	18	21	23	9	136
Rotary	0	0	0	0	0	0	1	0	1
Totals	17	18	21	22	27	30	35	10	180

TABLE 2 (Continued)

SUMMARY OF TEST VEHICLE CHARACTERISTICS
BY MODEL YEAR

St. Louis

	1967	1968	1969	1970	1971	1972	1973	1974	TOTALS
Inertia Weights (lbs)									
2000	1	0	1	2	2	0	1	0	7
2250	0	1	0	0	1	4	1	1	8
2500	0	0	0	0	2	4	4	0	10
2750	0	0	0	1	1	0	1	0	3
3000	2	4	2	2	2	2	3	0	17
3500	3	3	6	4	5	5	2	1	29
4000	9	6	6	7	6	4	12	5	55
4500	1	3	6	6	5	6	5	2	34
5000	1	1	0	0	3	5	4	1	15
5500	0	0	0	0	0	0	2	0	2
Engine Displacement (cubic inches)									
Under 251	4	4	3	3	7	10	10	2	43
251-330	7	8	7	4	6	4	7	2	45
331-399	4	3	9	10	7	8	9	3	53
Over 399	2	3	2	5	7	8	9	3	39
Number of Engine Cylinders									
4	1	1	1	2	5	8	7	1	26
6	3	3	2	1	2	2	3	1	17
8	13	14	18	19	20	20	24	8	136
Rotary	0	0	0	0	0	0	1	0	1
Totals	17	18	21	22	27	30	35	10	180

TABLE 5

EXHAUST EMISSIONS TEST RESULTS VS. MODEL YEAR

LOS ANGELES

1972 FEDERAL TEST PROCEDURE

	N	AVERAGE MILEAGE	HC		CO		CO_2		NO_X		FUEL ECONOMY	
			MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
1974	10	11133	3.26	0.77	40.82	16.33	733.9	187.8	2.23	1.18	10.98	2.53
1973	30	21922	4.29	1.49	47.93	38.41	657.2	174.5	3.00	1.15	12.25	3.13
1972	30	32898	4.08	2.30	48.83	22.06	600.1	178.9	3.63	0.97	12.78	3.35
1971	27	47518	4.38	2.50	61.05	50.62	569.3	191.5	3.13	1.01	13.00	3.97
1970	22	50898	5.85	9.80	73.51	61.81	557.0	160.0	3.51	1.36	12.59	3.40
1969	20	64031	6.16	3.46	82.81	49.16	494.7	91.0	3.53	1.41	13.78	2.44
1968	18	65526	7.31	3.56	91.21	58.28	492.4	135.2	3.29	1.05	13.69	3.02
1967	17	62177	7.38	11.48	87.00	71.26	510.8	127.1	2.88	1.51	13.04	2.46
TOTAL	180	43450	5.41	5.95	63.21	52.94	579.1	171.6	3.27	1.34	12.78	4.22

1975 FEDERAL TEST PROCEDURE

	N	AVERAGE MILEAGE	HC		CO		CO_2		NO_X		FUEL ECONOMY	
			MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
1974	10	11133	2.84	0.61	33.70	16.17	711.5	178.1	2.16	1.21	11.48	2.55
1973	30	21922	3.85	4.24	40.90	37.72	635.5	167.5	3.04	1.13	12.87	3.25
1972	30	32898	3.56	2.07	41.50	19.94	585.1	173.0	3.61	0.97	13.42	3.51
1971	27	47518	3.80	2.30	51.23	45.07	551.5	181.7	3.17	1.06	13.78	4.08
1970	22	50898	6.30	6.95	61.80	51.46	540.0	156.2	3.50	1.34	13.54	3.50
1969	20	64031	5.32	2.77	69.72	39.50	480.2	87.7	3.51	1.40	14.65	2.41
1968	18	65526	6.57	3.62	75.13	67.31	476.4	124.6	3.37	1.06	14.54	3.11
1967	17	62177	6.55	9.21	74.35	69.02	501.0	110.9	2.92	1.60	13.83	2.39
TOTAL	180	43450	4.72	4.77	54.41	45.43	557.1	165.8	3.32	1.30	13.30	3.33

TABLE [illegible]

EXHAUST EMISSIONS TEST RESULTS BY MODEL YEAR

ST. LOUIS

1972 FEDERAL TEST PROCEDURE

	N	AVERAGE MILEAGE	HC		CO		CO2		NOXC		FUEL ECONOMY	
			MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
[illegible]	[illegible]	[illegible]	2.81	0.80	[illegible]	12.17	741.[illegible]	265.5	[illegible]	0.75	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1.31	[illegible]	20.37	613.7	[illegible]	[illegible]	1.71	12.72	3.1[illegible]
[illegible]	[illegible]	[illegible]58	3.21	1.[illegible]	[illegible]	33.06	562.1	[illegible]	4.1	1.[illegible]	13.43	3.21
[illegible]	[illegible]	[illegible]	[illegible]	1.58	[illegible]	31.71	576.4	171.[illegible]	[illegible]	1.0[illegible]	13.04	[illegible]
[illegible]	[illegible]	[illegible]	5.1[illegible]	1.79	[illegible]	44.13	535.[illegible]	122.1	[illegible]	1.34	12.80	2.88
[illegible]	[illegible]	[illegible]	[illegible]	0.4[illegible]	84.[illegible]	[illegible]	[illegible]	[illegible]	4.[illegible]4	1.[illegible]	1[illegible].15	[illegible].17
[illegible]	[illegible]	[illegible]381	[illegible]	3.51	90.1[illegible]	[illegible].74	[illegible]05.[illegible]	[illegible]	[illegible]	1.21	13.32	[illegible].45
[illegible]	[illegible]	[illegible]021	[illegible]	2.54	10[illegible]	[illegible].25	470.[illegible]	[illegible]	[illegible].41	1.[illegible]	13.32	[illegible].66
[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible].17	[illegible].11	43.27	541.[illegible]	[illegible]	3.[illegible]	1.41	1[illegible].75	3.11

1975 FEDERAL TEST PROCEDURE

	N	AVERAGE MILEAGE	HC		CO		CO2		NOXC		FUEL ECONOMY	
			MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
[illegible]	[illegible]	[illegible]	2.56	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.56	[illegible]	11.53	[illegible].71
[illegible]	[illegible]	[illegible]	[illegible]	1.1[illegible]	[illegible]	[illegible]	[illegible].4	[illegible]	3.21	1.70	[illegible]	3.27
[illegible]	[illegible]	[illegible]	3.4[illegible]	1.2[illegible]	[illegible]	[illegible]	[illegible]	154.0	4.[illegible]	1.26	14.[illegible]	3.47
[illegible]	[illegible]	[illegible]	[illegible]	1.[illegible]	47.1[illegible]	[illegible]	[illegible]	[illegible]4.0	[illegible]	1.1[illegible]	1[illegible].8[illegible]	3.7[illegible]
[illegible]	[illegible]	[illegible]	4.[illegible]	1.[illegible]	[illegible]	[illegible]	[illegible]	11[illegible].2	[illegible]	1.[illegible]	1[illegible].71	2.88
[illegible]	[illegible]	[illegible]	[illegible].27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.21	[illegible].44	13.[illegible]1	2.49
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].8	[illegible]	1.2[illegible]	14.19	[illegible].59
[illegible]	[illegible]	[illegible]	[illegible]	2.14	[illegible].1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.11	2.70
[illegible]	[illegible]	[illegible]	4.34	[illegible]	[illegible]	[illegible]	[illegible]14.[illegible]	[illegible].1	[illegible]	[illegible]	[illegible]	3.21

TABLE 4

VEHICLES MEETING FEDERAL STANDARDS

Los Angeles

1972 Federal Standards ①

		HC		CO			
		<3.4 gm/mi		<39 gm/mi		Passed Both	
	N	No.	PCT	No.	PCT	No.	PCT
1967	17	2	11.8	2	11.8	2	11.8
1968	18	3	16.7	4	22.2	1	5.6
1969	21	2	9.5	2	9.5	1	4.8
1970	22	4	18.2	3	13.6	1	4.5
1971	27	11	40.7	9	33.3	9	33.3
1972	30	15	50.0	13	43.3	10	33.3
1973	35	20	57.1	22	62.9	20	57.1
1974	10	7	70.0	5	50.0	4	40.0
Totals	180	64	35.6	60	33.3	48	26.7

1973/1974 Federal Standards

		HC		CO		NO_x		Passed All Three	
	N	<3.4 gm/mi		<39 gm/mi		<3.0 gm/mi			
		No.	PCT	No.	PCT	No.	PCT	No.	PCT
1967	17	2	11.8	2	11.8	7	41.2	2	11.8
1968	18	3	16.7	4	22.2	5	27.8	0	0
1969	21	2	9.5	2	9.5	7	33.3	0	0
1970	22	4	18.2	3	13.6	8	36.4	1	4.5
1971	27	11	40.7	9	33.3	15	55.6	5	18.5
1972	30	15	50.0	13	43.3	9	30.0	4	13.3
1973	35	20	57.1	22	62.9	20	62.9	10	28.6
1974	10	7	70.0	5	50.0	9	90.0	3	30.0
Totals	180	64	35.6	60	33.3	71	39.4	25	13.9

① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 4 (Continued)

VEHICLES MEETING FEDERAL STANDARDS

Los Angeles

1975 Federal Standards ①

	N	HC <1.5 gm/mi		CO <15 gm/mi		NO_x < 3.1 gm/mi		Passed All Three	
		No.	PCT	No.	PCT	No.	PCT	No.	PCT
1967	17	0	0	3	17.6	9	52.9	00	0
1968	18	0	0	0	0	5	27.8	0	0
1969	21	0	0	1	4.8	8	38.1	0	0
1970	22	0	0	0	0	8	36.4	0	0
1971	27	2	7.4	2	7.4	14	51.9	1	3.7
1972	30	2	6.7	0	0	11	36.7	0	0
1973	35	0	0	2	5.7	21	60.0	0	0
1974	10	0	0	1	10.0	9	90.0	0	0
Totals	180	4	2.2	9	5.0	85	47.2	1	0.6

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① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 4 (Continued)

VEHICLES MEETING FEDERAL STANDARDS

St. Louis

1972 Federal Standards ①

		HC < 3.4 gm/mi		CO < 39 gm/mi		Passed Both	
	N	No.	PCT	No.	PCT	No.	PCT
1967	17	0	0	1	5.9	0	0
1968	18	1	5.6	1	5.6	0	0
1969	21	2	9.5	2	9.5	1	4.8
1970	22	3	13.6	2	9.1	2	9.1
1971	27	11	40.7	7	25.9	4	14.8
1972	30	11	36.7	10	33.3	5	16.7
1973	35	21	60.0	15	42.9	13	37.1
1974	10	9	90.0	7	70.0	7	70.0
Totals	180	58	32.2	45	25.0	32	17.8

1973/1974 Federal Standards

		HC < 3.4 gm/mi		CO < 39 gm/mi		NO_x < 3.0 gm/mi		Passed All Three	
	N	No.	PCT	No.	PCT	No.	PCT	No.	PCT
1967	17	0	0	1	5.9	8	47.1	0	0
1968	18	1	5.6	1	5.6	7	38.9	0	0
1969	21	2	9.5	2	9.5	4	19.0	0	0
1970	22	3	13.6	2	9.1	7	31.8	1	4.5
1971	27	11	40.7	7	25.9	7	25.9	1	3.7
1972	30	11	36.7	10	33.3	4	13.3	1	3.3
1973	35	21	60.0	15	42.9	22	62.9	8	22.9
1974	10	9	90.0	7	70.0	7	70.0	6	60.0
Totals	180	58	32.2	45	25.0	66	36.7	17	9.4

① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 4 (Continued)

VEHICLES MEETING FEDERAL STANDARDS

St. Louis

1975 Federal Standards ①

	N	HC ≤ 1.5 gm/mi No.	 PCT	CO ≤ 15 gm/mi No.	 PCT	NO_x ≤ 3.1 gm/mi No.	 PCT	All Three No.	 PCT
1967	17	0	0	0	0	8	47.1	0	0
1968	18	0	0	0	0	7	38.9	0	0
1969	21	0	0	0	0	4	19.0	0	0
1970	22	0	0	0	0	7	31.8	0	0
1971	27	0	0	1	3.7	9	33.3	0	0
1972	30	1	3.3	3	10.0	5	16.7	0	0
1973	35	0	0	1	2.9	23	65.7	0	0
1974	10	0	0	2	20.0	7	70.0	0	0
Totals	180	1	0.6	7	3.9	70	38.9	0	0

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① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 5

1972 VEHICLES MEETING 1972 FEDERAL STANDARDS

Los Angeles

1972 Federal Test Procedure ①

	N	HC $<$3.4 gm/mi	CO $<$39 gm/mi	Passed Both
Buick	2	2	2	2
Chevrolet	7	5	5	5
Datsun	1	0	1	0
Dodge	2	1	0	0
Ford	6	3	2	1
Lincoln	1	0	0	0
Mercury	1	0	0	0
Oldsmobile	2	2	2	2
Opel	1	0	0	0
Plymouth	2	1	0	0
Pontiac	2	1	0	0
Toyota	1	0	1	0
Volkswagen	2	0	0	0
Totals	30	15	13	10

① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 5 (Continued)

1972 VEHICLES MEETING 1972 FEDERAL STANDARDS

St. Louis

1972 Federal Test Procedure ①

	N	HC <3.4 gm/mi	CO <39 gm/mi	Passed Both
Buick	2	1	0	0
Chevrolet	7	4	2	1
Datsun	1	1	1	1
Dodge	2	0	1	0
Ford	6	2	1	1
Lincoln	1	0	0	0
Mercury	1	0	1	0
Oldsmobile	2	1	1	1
Opel	1	1	0	0
Plymouth	2	0	0	0
Pontiac	2	0	2	0
Toyota	1	0	0	0
Volkswagen	2	1	1	1
Totals	30	11	10	5

① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 6

1973 VEHICLES MEETING 1973 FEDERAL STANDARDS

Los Angeles

1973 Federal Test Prodedure ①

	N	HC <3.4 gm/mi	CO <39 gm/mi	NO_x <3.0 gm/mi	Passed All Three
AMC	1	1	1	0	0
Buick	2	1	2	2	1
Cadillac	1	1	1	0	0
Capri	1	1	1	1	1
Chevrolet	8	5	6	3	1
Chrysler	1	0	0	0	0
Datsun	1	1	1	1	1
Dodge	2	1	1	2	1
Ford	7	3	3	6	2
Mazda	1	0	1	1	0
Mercury	1	1	1	1	1
Oldsmobile	2	2	2	2	2
Plymouth	2	1	0	1	0
Pontiac	2	1	1	1	0
Toyota	1	0	0	0	0
Volkswagen	2	1	1	1	0
Totals	35	20	22	22	10

① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 6 (Continued)

1973 VEHICLES MEETING 1973 FEDERAL STANDARDS

St. Louis

1973 Federal Test Procedure ①

	N	HC $\leq$3.4 gm/mi	CO $\leq$39 gm/mi	NO_x $\leq$3.0 gm/mi	Passed All Three
AMC	1	1	0	1	0
Buick	2	0	1	1	1
Cadillac	1	1	0	0	0
Capri	1	1	0	1	0
Chevrolet	8	7	5	8	5
Chrysler	1	0	0	1	0
Datsun	1	1	1	0	0
Dodge	2	2	2	1	1
Ford	7	4	1	4	0
Mazda	1	0	1	1	0
Mercury	1	0	0	1	0
Oldsmobile	2	2	2	1	1
Plymouth	2	1	1	0	0
Pontiac	2	1	1	0	0
Toyota	1	0	1	0	0
Volkswagen	2	0	0	2	0
Totals	35	21	16	22	8

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① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 7

1974 VEHICLES MEETING 1974 FEDERAL STANDARDS

Los Angeles

1974 Federal Test Procedure ①

	N	HC <3.4 gm/mi	CO <39 gm/mi	NO_x <3.0 gm/mi	Passed All Three
Buick	1	0	1	1	0
Chevrolet	2	1	1	2	1
Dodge	1	1	1	0	0
Ford	2	2	1	2	1
Oldsmobile	1	1	1	1	1
Plymouth	1	1	0	1	0
Pontiac	1	0	0	1	0
Volkswagen	1	1	0	1	0
Totals	10	7	5	9	3

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① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 7 (Continued)

1974 VEHICLES MEETING 1974 FEDERAL STANDARDS

St. Louis

1974 Federal Test Procedure ①

	N	HC < 3.4 gm/mi	CO < 39 gm/mi	NO_x < 3.0 gm/mi	Passed All Three
Buick	1	1	1	1	1
Chevrolet	2	2	2	2	2
Dodge	1	1	0	1	0
Ford	2	2	2	1	1
Oldsmobile	1	1	1	1	1
Plymouth	1	0	0	0	0
Pontiac	1	1	1	1	1
Volkswagen	1	1	0	0	0
Totals	10	9	7	7	6

① Emission values rounded in accordance with Military specifications to derive number of vehicles meeting Federal Standards.

TABLE 8

SUMMARY OF MODAL EMISSIONS RESULTS OF
40 1972 MODEL-YEAR VEHICLES

LOS ANGELES

MOD NO.	FROM-TO MPH	DISTANCE (MILES)	TIME IN MODE (SEC)	MEAN HC	MEAN CO	MEAN CO2	MEAN NOX	MEAN MPG*
1	0 - 30	.0463	12	5.75	104.50	1190.7	14.05	6.45
2	30 - 0	.0443	15	2.36	27.04	345.4	1.04	22.41
3	0 - 15	.0221	8	7.53	144.94	1156.7	4.46	6.14
4	15 - 30	.0726	11	4.13	44.61	775.0	6.46	10.28
5	30 - 45	.1331	13	2.44	26.74	594.9	4.53	13.66
6	45 - 60	.1496	12	1.94	13.82	260.3	1.94	39.06
7	30 - 60	.2024	17	4.44	103.26	792.1	11.73	9.14
8	60 - 45	.1765	12	2.43	11.17	193.0	3.42	41.36
9	45 - 60	.2534	14	2.53	40.36	395.1	11.36	13.56
10	60 - 15	.1364	15	3.25	15.74	251.1	2.58	37.55
11	15 - 60	.3135	24	3.53	65.54	771.9	13.21	9.36
12	60 - 0	.1440	21	4.05	15.55	206.0	2.42	35.52
13	0 - 60	.3442	32	3.52	53.01	830.5	14.54	9.49
14	60 - 30	.2252	23	2.13	13.92	163.1	2.52	45.64
15	30 - 15	.0532	9	1.53	22.13	225.5	1.06	32.96
16	15 - 0	.0134	8	4.46	73.51	547.1	3.61	13.14
17	0 - 45	.1955	22	4.33	72.22	690.9	12.41	9.06
18	45 - 15	.1351	16	2.57	17.53	191.2	1.57	39.37
19	15 - 45	.1394	15	3.05	56.49	767.6	11.63	10.21
20	45 - 0	.1049	14	3.04	26.05	273.5	1.72	27.43
21	0 - 55	.2741	25	5.55	133.46	917.6	13.13	7.74
22	55 - 0	.2001	26	3.45	13.44	224.0	3.05	33.46
23	0 - 30	.1381	15	3.54	40.60	447.7	10.36	7.74
24	30 - 60	.3177	25	2.55	46.35	643.1	12.59	12.47
25	60 - 30	.2553	18	2.36	15.21	143.2	2.60	34.53
26	30 - 0	.0403	10	2.45	36.68	388.8	1.66	19.36
27	0 - 60	.4095	35	3.12	45.60	715.8	14.13	11.09
28	60 - 0	.3354	35	3.37	21.41	194.9	1.84	37.54
29	0 - 30	.1328	18	4.75	61.60	499.6	6.77	8.51
30	30 - 60	.2642	21	3.13	55.75	745.7	13.40	10.55
31	60 - 30	.1772	18	3.37	13.63	145.2	2.58	44.97
32	30 - 0	.0351	13	3.66	43.26	387.6	1.70	19.01
	TOTAL UNWEIGHTED RESULTS			2.77	32.74	476.5	5.39	16.63
	TOTAL BAG RESULTS			2.59	29.61	507.1	5.40	15.77
33	IDLE			0.56	4.30	84.0	0.06	88.43
34	5 MPH STEADY STATE			6.52	107.37	1050.9	0.80	7.16
35	10 MPH STEADY STATE			3.17	37.64	711.2	0.64	11.37
36	15 MPH STEADY STATE			2.32	17.35	534.3	0.55	15.52
37	30 MPH STEADY STATE			1.36	6.96	359.4	1.24	23.64
38	45 MPH STEADY STATE			1.63	4.42	346.3	3.63	24.71
39	60 MPH STEADY STATE			1.54	4.38	369.0	6.26	21.81

* EMISSION RESULTS IN GRAMS/MILE (GRAMS PER MINUTE IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

TABLE 8

SUMMARY OF MODAL EMISSIONS RESULTS ON 30 1972 MODEL-YEAR VEHICLES

ST. LOUIS

MODE NO.	[illegible] MPH	DISTANCE (MILES)	TIME IN MODE (SEC)	MEAN HC	MEAN CO	MEAN CO2	MEAN NOX	MEAN MPG*
1	[illegible]	[illegible]	12	[illegible]	86.23	1111.3	8.91	6.97
[illegible]	[illegible]	[illegible]	[illegible]	3.14	35.0[illegible]	[illegible]	1.01	20.70
[illegible]	[illegible]	[illegible]	8	[illegible]	[illegible]	[illegible]	[illegible]	8.57
4	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]	5.20	10.88
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13.80
[illegible]	[illegible]	[illegible]	12	[illegible]	13.14	[illegible]	1.34	36.75
[illegible]	[illegible]	[illegible]	[illegible]	1.34	[illegible]	[illegible]	8.04	10.65
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.05	40.87
[illegible]	[illegible]	[illegible]	14	[illegible]	27.85	[illegible]	[illegible]	13.47
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.63	37.34
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.85	[illegible]	7.76	10.24
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	211.[illegible]	1.76	33.24
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15.62	101.4	[illegible]	41.00
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	90.15	[illegible]	0.87	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.05	12.25
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.17	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	36.13
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.17	10.37
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.37	26.25
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	225.80	[illegible]	8.67	8.01
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.40	31.75
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	74.[illegible]	[illegible]	7.35	8.33
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	71.97	[illegible]	7.76	12.36
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.80	[illegible]	1.84	37.40
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	875.[illegible]	1.11	18.85
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.70	[illegible]	8.81	11.11
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	205.[illegible]	1.48	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	81.[illegible]	[illegible]	7.07	8.72
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.27	11.33
[illegible]	[illegible]	[illegible]	11	[illegible]	17.5[illegible]	17[illegible]	1.53	42.09
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40[illegible]	1.25	17.15
	TOTAL ALLOCATED RESULTS			[illegible]	[illegible]	470.4	4.[illegible]	16.81
	TOTAL BAG RESULTS			[illegible]	[illegible]	421.4	5.2[illegible]	18.11
	IDLE			[illegible]	11.[illegible]	76.2	0.07	[illegible]
[illegible]	5 MPH STEADY STATE			[illegible]	[illegible]	1019.1	0.58	7.13
[illegible]	10 MPH STEADY STATE			[illegible]	95.91	[illegible]	[illegible]	11.76
[illegible]	15 MPH STEADY STATE			[illegible]	[illegible]	470.0	0.52	16.53
[illegible]	30 MPH STEADY STATE			1.29	13.47	342.0	1.41	24.18
[illegible]	45 MPH STEADY STATE			[illegible]	9.38	342.[illegible]	3.41	24.57
[illegible]	60 MPH STEADY STATE			[illegible]	12.50	398.9	5.76	20.9[illegible]

* EMISSION RESULTS IN GRAMS/MILE (GRAMS PER MINUTE IDLE)
  FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

TABLE 9

SUMMARY OF MODAL EMISSIONS RESULTS ON 35 1972 MODEL-YEAR VEHICLES

LOS ANGELES

MODE NO	FROM-TO MPH	DISTANCE (MILES)	TIME IN MODE (SEC)	MEAN HC	MEAN CO	MEAN CO2	MEAN NOX	MEAN MPG*
1	0 - 30	0643	12	7.87	44.11	1352.8	12.50	5.82
2	30 - 0	0699	16	2.65	24.96	403.1	1.06	19.69
3	0 - 15	0221	8	8.11	108.40	1251.6	4.12	6.14
4	15 - 30	0726	11	3.73	39.94	835.5	5.82	9.75
5	30 - 45	1331	13	2.93	21.72	564.6	8.78	12.54
6	45 - 30	1248	12	2.17	8.81	220.2	1.33	36.84
7	30 - 60	2204	17	5.38	139.98	956.5	9.21	8.09
8	60 - 45	1744	12	2.27	8.92	212.1	2.05	38.05
9	45 - 60	2064	14	2.98	37.77	670.8	8.40	11.90
10	60 - 15	3304	30	3.05	11.63	330.4	1.41	33.96
11	15 - 60	3198	24	4.30	57.71	945.8	9.92	8.89
12	60 - 0	1990	21	4.45	12.61	242.6	2.19	31.91
13	0 - 60	3482	32	4.35	67.18	879.9	10.62	8.87
14	60 - 30	2952	23	2.67	9.83	185.0	1.19	42.30
15	30 - 15	0559	9	1.95	17.41	262.9	6.84	29.97
16	15 - 0	0153	6	4.47	90.96	627.3	6.73	12.04
17	0 - 45	1926	22	5.12	47.94	980.0	10.13	8.36
18	45 - 15	1251	16	1.95	11.22	218.1	1.07	36.04
19	15 - 45	1569	18	4.31	56.87	857.7	9.43	9.24
20	45 - 0	1242	17	2.22	18.38	298.6	1.20	26.28
21	0 - 60	2741	25	7.00	165.87	977.3	10.11	7.04
22	60 - 0	2551	26	2.32	15.77	255.7	1.44	30.49
23	0 - 30	0781	15	5.90	82.05	1049.9	9.40	7.61
24	30 - 60	3177	25	3.17	45.30	712.6	9.92	11.18
25	60 - 30	2320	17	2.20	10.25	218.5	1.65	37.05
26	30 - 0	0405	10	3.06	38.05	421.8	1.70	18.30
27	0 - 60	4095	28	4.05	41.55	803.3	10.08	10.03
28	60 - 0	3209	25	2.38	16.41	234.4	1.18	32.77
29	0 - 50	0928	18	5.72	82.19	958.8	7.66	8.26
30	50 - 50	2682	21	3.75	65.95	788.8	9.51	9.76
31	50 - 30	1772	14	2.93	10.51	182.5	1.08	47.62
32	30 - 0	0551	13	3.35	34.75	428.6	1.70	17.97
	TOTAL CALCULATED RESULTS			2.90	31.83	524.9	4.70	15.19
	TOTAL BAG RESULTS			3.22	32.59	545.9	4.35	14.62
33	IDLE			0.59	6.92	93.6	0.07	83.47
34	5 MPH STEADY STATE			7.11	73.91	1150.2	1.02	6.89
35	10 MPH STEADY STATE			3.11	36.79	713.6	0.75	11.36
36	15 MPH STEADY STATE			1.97	25.85	542.2	0.65	15.07
37	30 MPH STEADY STATE			1.35	9.05	394.7	1.28	21.48
38	45 MPH STEADY STATE			1.30	5.06	393.3	2.68	21.89
39	60 MPH STEADY STATE			1.23	6.87	431.5	4.30	19.89

* EMISSION RESULTS IN GRAMS/MILE (GRAMS PER MINUTE IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

TABLE 9

SUMMARY OF MODAL EMISSIONS RESULTS ON
35 1973 MODEL-YEAR VEHICLES

ST. LOUIS

MODE NO	FROM-TO MPH	DISTANCE (MILES)	TIME IN MODE (SEC)	MEAN HC	MEAN CO	MEAN CO2	MEAN NOX	MEAN MPG*
1	0 - 30	0643	12	7.52	97.27	1201.6	5.98	6.44
2	30 - 0	0699	16	3.20	31.24	388.6	0.81	19.82
3	0 - 15	0211	8	9.05	139.56	1257.0	2.27	5.90
4	15 - 30	0726	11	3.94	46.26	837.2	3.90	9.62
5	30 - 45	1381	13	4.37	28.47	659.3	4.42	12.36
6	45 - 30	1248	12	2.58	12.72	236.1	1.21	33.58
7	30 - 60	2204	17	7.49	127.10	810.2	6.06	8.59
8	60 - 45	1746	12	2.72	12.28	203.0	1.58	38.43
9	45 - 60	2064	14	3.92	46.62	634.0	4.94	12.33
10	60 - 15	3304	30	3.23	17.06	219.0	1.24	34.66
11	15 - 60	3198	26	5.46	87.09	790.2	6.40	9.40
12	60 - 0	1890	21	4.78	20.13	229.7	1.53	32.10
13	0 - 60	3482	32	5.98	89.57	854.4	6.61	8.75
14	60 - 30	2952	23	2.89	13.76	198.6	1.12	38.69
15	30 - 15	0559	9	1.94	25.38	266.7	0.54	28.38
16	15 - 0	0153	8	4.24	82.60	610.5	0.79	11.78
17	0 - 45	1826	22	5.54	82.52	909.7	6.11	8.40
18	45 - 15	1351	16	2.47	19.71	215.2	0.88	34.94
19	15 - 45	1569	18	5.22	71.42	831.9	5.88	9.24
20	45 - 0	1242	19	3.46	29.01	299.7	1.04	24.91
21	0 - 60	2741	25	9.06	195.04	950.9	6.26	6.90
22	60 - 0	2551	28	[illegible].63	22.64	243.8	1.17	30.51
23	0 - 30	0781	15	5.64	78.13	1031.7	5.58	7.57
24	30 - 60	3177	25	3.86	63.37	676.8	5.63	11.25
25	60 - 30	2320	18	2.87	16.42	205.1	1.36	36.99
26	30 - 0	0403	10	3.07	48.69	427.5	0.91	17.27
27	0 - 60	4095	38	4.04	71.42	741.8	6.14	10.24
28	60 - 0	3209	35	3.53	24.06	228.4	0.97	32.00
29	0 - 30	0928	18	5.36	78.87	955.1	4.58	8.10
30	30 - 60	2682	21	4.89	87.00	720.8	5.84	10.17
31	60 - 30	1772	14	3.51	15.93	183.9	1.39	40.33
32	30 - 0	0551	13	3.79	49.97	446.9	0.93	16.51
	TOTAL CALCULATED RESULTS			3.43	40.24	503.7	3.41	15.36
	TOTAL BAG RESULTS			3.37	37.97	507.4	3.92	15.36
33	IDLE			0.59	10.54	108.8	0.05	69.74
34	5 MPH STEADY STATE			6.17	120.60	1069.4	0.61	6.94
35	10 MPH STEADY STATE			2.55	55.71	635.1	0.47	11.37
36	15 MPH STEADY STATE			1.65	32.20	516.8	0.43	15.50
37	30 MPH STEADY STATE			1.35	12.78	375.2	1.15	22.21
38	45 MPH STEADY STATE			1.64	6.50	361.2	2.67	23.57
39	60 MPH STEADY STATE			1.97	10.38	410.9	4.25	20.48

* EMISSION RESULTS IN GRAMS/MILE (GRAMS PER MINUTE IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

TABLE 10

SUMMARY OF MODAL EMISSIONS RESULTS ON 10 1974 MODEL-YEAR VEHICLES

LOS ANGELES

MODE NO.	FROM-TO MPH	DISTANCE (MILES)	TIME IN MODE (SEC)	MEAN HC	MEAN CO	MEAN CO2	MEAN NOX	MEAN MPG*
1	0 - 30	0643	12	5.55	94.18	1579.5	8.52	5.09
2	30 - 0	0699	16	2.23	18.37	482.6	0.74	17.12
3	0 - 15	0221	8	5.21	101.44	1353.1	2.74	5.80
4	15 - 30	0726	11	2.64	38.63	949.7	4.31	8.71
5	30 - 45	1381	13	2.02	21.62	740.5	4.73	11.37
6	45 - 30	1248	12	1.53	7.19	279.6	0.97	30.00
7	30 - 60	2204	17	4.35	141.87	966.7	8.42	7.37
8	60 - 45	1746	12	1.64	8.40	254.6	1.59	32.51
9	45 - 60	2064	14	2.43	62.48	748.3	5.05	10.39
10	60 - 15	3304	30	2.03	7.98	263.0	0.89	31.48
11	15 - 60	3198	26	3.36	87.99	950.5	7.00	8.07
12	60 - 0	1890	21	3.83	10.83	279.1	1.26	28.79
13	0 - 60	3482	32	3.25	73.20	1044.3	7.38	7.58
14	60 - 30	2952	23	2.12	7.06	226.6	0.89	36.39
15	30 - 15	0559	9	1.40	17.31	319.8	0.57	25.26
16	15 - 0	0153	8	2.74	57.77	760.8	1.05	10.32
17	0 - 45	1826	22	3.66	79.85	1086.7	6.61	7.25
18	45 - 15	1351	16	1.95	10.82	251.5	0.86	32.31
19	15 - 45	1569	18	2.99	65.58	992.5	6.30	8.03
20	45 - 0	1242	19	2.21	14.89	350.1	0.90	23.33
21	0 - 60	2741	25	5.23	156.44	1162.9	9.14	6.23
22	60 - 0	2551	28	2.65	12.68	284.2	0.90	28.39
23	0 - 30	0781	15	4.11	62.90	1192.6	6.56	6.80
24	30 - 60	3177	25	2.57	62.49	794.7	5.82	9.85
25	60 - 30	2320	18	2.03	8.73	256.6	1.04	32.07
26	30 - 0	0403	10	2.33	34.84	498.5	1.17	15.87
27	0 - 60	4095	38	2.79	51.48	914.6	6.98	8.64
28	60 - 0	3209	35	2.34	10.78	265.1	0.85	30.66
29	0 - 30	0928	18	3.95	63.73	1025.9	5.49	7.40
30	30 - 60	2682	21	3.52	96.35	843.6	5.96	8.82
31	60 - 30	1772	14	2.56	10.30	229.8	1.09	34.93
32	30 - 0	0551	13	2.49	31.12	534.3	1.04	15.01
	TOTAL CALCULATED RESULTS			2.15	33.46	597.9	3.21	13.50
	TOTAL BAG RESULTS			2.28	36.54	620.9	2.97	12.95
33	IDLE			0.44	5.90	113.1	0.09	71.74
34	5 MPH STEADY STATE			5.33	71.49	1345.7	1.08	6.02
35	10 MPH STEADY STATE			1.82	33.09	820.9	0.68	10.10
36	15 MPH STEADY STATE			1.09	18.65	591.3	0.53	14.22
37	30 MPH STEADY STATE			1.10	8.76	451.7	0.89	18.93
38	45 MPH STEADY STATE			0.88	5.63	444.9	1.66	19.44
39	60 MPH STEADY STATE			0.84	7.69	479.3	2.61	17.96

* EMISSION RESULTS IN GRAMS/MILE (GRAMS PER MINUTE IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

TABLE [illegible]

[illegible]

[illegible] MODEL YEAR VEHICLES

[illegible]

[illegible]	[illegible]	DISTANCE (MILES)	TIME IN MODE (SEC)	MEAN HC	MEAN CO	MEAN CO2	MEAN NOX	MEAN MPG*
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 25	1147 [illegible]	5 36	5 61
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 40	[illegible]51 1	0 71	14 8[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 24	[illegible]	2 35	5 2[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 39	[illegible]	2 44	8 71
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22 71	[illegible]	3 61	11 14
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 38	[illegible]	0 69	29 30
[illegible]	[illegible]	[illegible]	[illegible]	5 [illegible]	159 15	887 1	4 19	7 69
[illegible]	[illegible]	[illegible]74	[illegible]	[illegible] 11	[illegible]	[illegible]44 1	0 80	33 01
[illegible]	[illegible]	[illegible]	[illegible]	2 [illegible]	5[illegible]	[illegible]21 5	3 37	10 92
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11 [illegible]	[illegible]	0 67	29 0[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	4 07	10[illegible]	877 [illegible]	4 93	8 43
[illegible]	[illegible]	[illegible]	21	[illegible]	14 55	[illegible] 1	0 80	25 0[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	4 20	96 93	[illegible]74 1	5 15	7 7[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 71	[illegible] 93	[illegible]42 7	0 87	33 85
[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 71	20 44	[illegible]7 [illegible]	0 50	22 45
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	56 [illegible]	851 7	1 18	9 31
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	75 [illegible]	1065 [illegible]	4 78	7 2[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15 [illegible]2	290 0	0 83	27 81
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	75 [illegible]5	[illegible]1 4	4 13	7 9[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]1 [illegible]	396 8	0 76	20 31
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1092 [illegible]	5 60	[illegible] 05
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible] 11	3[illegible]7 [illegible]	0 71	24 32
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1215 [illegible]	4 01	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4 08	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible] 82	[illegible]	0 85	30 94
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0 70	13 [illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 1	4 88	[illegible] 02
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 0	0 87	26 0[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 1	3 1[illegible]	7 0[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	121 03	[illegible]	4 02	8 82
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 1	0 55	31 35
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0 7[illegible]	12 91
	TOTAL [illegible]			[illegible]	[illegible]	[illegible]	2 4[illegible]	13 61
	[illegible]			[illegible]	[illegible]	[illegible]	2 [illegible]	13 54
[illegible]	[illegible]			0 17	5 [illegible]	[illegible]	0 33	[illegible]3 75
[illegible]	5 MILE [illegible] STATE			[illegible]	[illegible]	[illegible]	1 33	5 47
[illegible]	[illegible] STATE			[illegible]	[illegible] 11	[illegible]	0 89	9 84
[illegible]	[illegible]			1 [illegible]	[illegible]	[illegible]	0 3[illegible]	14 48
[illegible]	[illegible] STATE			[illegible]	[illegible]	[illegible]	1 35	20 08
[illegible]	[illegible] STATE			1 02	[illegible]	410 5	1 81	21 04
[illegible]	[illegible] STATE			[illegible]	[illegible]	[illegible] 1	2 [illegible]	1[illegible] 4[illegible]

[illegible] IN GRAMS [illegible] (GRAMS PER MINUTE IDLE)

[illegible] (MINUTES PER GALLON FOR IDLE)

TABLE 11

SUMMARY OF EVAPORATIVE EMISSION TEST RESULTS OF TWENTY 1973 MODEL-YEAR VEHICLES

Los Angeles

SHED Procedure (Enclosure method)

Diurnal Soak:	Time (minutes)	60	
	Enclsoure temperature (°F)	79.9	
	Internal temperature (°F)	84.3	
	HC (GMS)	11.68	
Hot Soak:	Time (minutes)	60	
	Enclosure temperature (°F)	83.9	
	Internal temperature (°F)	94.3	
	HC (GMS)	11.71	
Average grams of evaporated HC emissions			23.39

Federal Test Procedure (Canister method)

Diurnal Soak:	Time (minutes)	60	
	Soak temperature (°F)	80.3	
	Internal temperature (°F)	83.8	
Hot Soak:	Time (minutes)	60	
	Soak temperature (°F)	81.0	
	Internal temperature (°F)	94.3	
Average grams of evaporated HC emissions			0.45
Number of vehicles which met 1973 Federal Standards (< 2 gms)			20
Percent of total tested			100%

Fuel Inspection Results (Average)

RVP	8.0
H/C ratio	2.325
Fuel distillation temperatures (°F)	
IBP	96
5%	117
10%	128
15%	138
20%	148
30%	167
40%	188
50%	211
90%	327
EBP	408

TABLE 12

SUMMARY OF RESULTS OF REPLICATE TESTING ON TWENTY 1973 MODEL-YEAR VEHICLES

LOS ANGELES

1972 FEDERAL TEST PROCEDURE

	NO. OF VEHICLES	HC MEAN	HC S.D.	CO MEAN	CO S.D.	NOXC MEAN	NOXC S.D.	FUEL ECON MEAN	FUEL ECON S.D.
FIRST TEST	20	4.00	2.6	57.34	46.4	3.08	1.0	11.69	3.1
SECOND TEST	20	3.54	2.2	46.98	39.2	3.12	1.0	12.31	3.2
BETWEEN TESTS (PAIRED T)	20	0.46	0.6	10.35	10.5	-0.04	0.3	-0.62	0.2

1975 FEDERAL TEST PROCEDURE

	NO. OF VEHICLES	HC MEAN	HC S.D.	CO MEAN	CO S.D.	NOXC MEAN	NOXC S.D.	FUEL ECON MEAN	FUEL ECON S.D.
FIRST TEST	20	4.00	2.2	54.02	33.6	3.28	1.1	11.57	3.0
SECOND TEST	20	3.49	2.1	43.93	32.0	3.29	1.2	12.17	3.1
BETWEEN TESTS (PAIRED T)	20	0.51	0.4	10.09	6.6	-0.01	0.2	-0.60	0.2

4. ACKNOWLEDGMENTS

The authors would like to express their appreciation to Mr. Charles Domke, Chief, Surveillance Branch, and Mr. John White, Project Officer, Office of Air and Waste Management Programs, Environmental Protection Agency. Mr. White, who served as the Project Officer for this sponsoring agency, provided counsel and technical guidance throughout the program. The authors would also like to express thanks to other members of AESi's staff, and particularly to Mrs. Molly Westhafer (Computer Sciences), Mr. Michael Chadwick (Laboratory Manager, St. Louis), and Mr. Richard Parsons (Laboratory Manager, Westminster), who provided managerial and technical support during the program.

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

Column Heading	Description
VEH:	Vehicle Number
RUN:	Run Number
DATE:	Date of Test (Month, Day, Year)
YR:	Model Year
MKAE:	Vehicle Make
MODL:	Vehicle Model
C:	Number of Cylinders
CID:	Engine Displacement in Cubic Inches
V:	Number of Carburetor Venturis (0: fuel injection)
T:	Type of Transmission (1: automatic, 3: 3 speed manual, 4: 4-speed manual)
A:	Air Conditioning? (1: yes, 2: no)
FT:	Fuel Tank Capacity in Gallons
IRPM:	Idle RPM
P:	PCV System Operational? (1: yes, 2: no, 3: not present)
DW:	Ignition Point Dwell in Degrees (99: electronic ignition)
IGN:	Ignition Timing in Degrees (+ or blank indicates before top dead center; - indicates after top dead center)
TESTS:	Additional Tests Performed on This Vehicle (1: modal emissions, 4: evaporative emissions)
INRT:	Dynamometer Inertia Weight Setting
RLHP:	Road Load Horsepower Setting
L:	Was 10% RLHP Added to Simulate Air Conditioner? (1: yes, 2: no)
DB:	Dry-Bulb Temperature (°F)
WB:	Wet-Bulb Temperature (°F)
BAROM:	Barometric Pressure (inches Hg)

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

LOS ANGELES

VEH	RUN	DATE	YR	MAKE	MODL	C	CID	V	T	A	ET	IDRPM	[illegible]	DW	IGN	TESTS	INRT	RLHP	L	DB	WB	BAROM
1	1916	7-30-74	74	BUIC	ELEC	8	455	4	1	1	35	575	1	33	6	1	5000	14.7	1	79	70	30.08
2	1903	8-21-74	74	CHEV	MONT	8	350	4	1	1	35	650	1	30	8	1	4000	12.0	2	78	66	30.06
3	1844	7- 3-74	74	CHEV	IMPA	8	350	2	1	1	26	600	1	30	8	1	4500	14.0	1	81	66	30.16
4	1834	6-28-74	74	DODG	MAXI	8	360	2	1	1	33	650	1	30	7	1	4000	13.2	1	85	67	30.00
5	2038	8-30-74	74	FORD	MAVE	8	302	2	1	1	15	525	1	33	6	1	3500	11.2	2	79	66	29.99
6	2024	8-27-74	74	FORD	TORI	8	351	2	1	1	27	700	1	30	9	1	4000	13.2	1	80	60	30.05
7	2151	9-24-74	74	OLDS	CUTL	8	350	4	1	1	30	650	1	31	8	1	4000	12.2	1	79	65	30.00
8	1873	7-17-74	74	PLYM	DUST	8	318	2	1	1	10	800	1	30	8	1	3500	12.3	1	85	71	31.07
9	1933	8- 5-74	74	PONT	CATA	8	400	2	1	1	26	525	1	30	6	1	4500	14.0	1	78	68	30.01
10	1855	7-11-74	74	VOLK	BEET	4	97	1	4	2	11	925	1	50	12	1	2250	9.0	2	83	67	30.11
11	1854	7-11-74	73	AMER	MATA	6	258	1	1	1	20	525	1	32	6	1 4	4000	13.2	1	82	67	30.10
11R	1857	7-11-74	73	AMER	MATA	6	258	1	1	1	20	525	1	32	6	1 4	4000	13.2	1	81	67	30.12
12	1880	7-22-74	73	BUIC	LESA	8	350	4	1	1	22	550	1	27	2	1 4	4500	14.0	1	82	71	30.07
12R	1891	7-24-74	73	BUIC	LESA	8	350	4	1	1	22	550	1	27	0	1 4	4500	14.0	1	81	70	30.02
13	2009	8-23-74	73	BUIC	RIVI	8	455	4	1	1	26	600	1	32	4	1 4	5000	14.7	1	80	68	30.10
13R	2013	8-25-74	73	BUIC	RIVI	8	455	4	1	1	26	600	1	32	4	1 4	5000	14.7	1	79	68	30.07
14	1951	8- 9-74	73	CADI	COUP	8	472	4	1	1	28	625	1	30	4	1 4	5500	15.3	1	80	68	30.00
14R	1952	8-11-74	73	CADI	COUP	8	472	4	1	1	28	625	1	33	4	1 4	5500	15.3	1	80	65	30.07
15	2036	8-30-74	73	CAPR	CAPR	4	122	2	1	2	12	725	1	41	7	1	2500	9.4	2	78	69	29.98
16	1936	8- 6-74	73	CHEV	VEGA	4	140	1	1	1	11	625	1	32	16	1 4	2500	9.4	2	81	70	30.03
16R	1941	8- 7-74	73	CHEV	VEGA	4	140	1	1	1	11	625	1	32	16	1 4	2500	9.4	2	81	70	29.99
17	1826	6-27-74	73	CHEV	1/2	6	250	1	1	2	21	850	1	32	7	1 4	4000	12.0	2	80	66	29.99
17R	1833	6-28-74	73	CHEV	1/2	6	250	1	1	2	21	850	1	32	7	1 4	4000	12.0	2	85	68	30.00
18	2032	8-29-74	73	CHEV	NOVA	8	307	2	1	1	21	750	1	29	12	1	3500	11.2	2	76	65	30.00
19	1860	7-12-74	73	CHEV	1/2	8	307	2	1	1	23	650	1	26	14	1	4000	13.2	1	83	67	30.08
20	1839	7- 2-74	73	CHEV	CUST	8	350	2	1	2	25	600	1	29	6	1	4500	12.7	2	79	66	29.89
21	1874	7-18-74	73	CHEV	IMPA	8	307	2	1	1	26	600	1	29	9	1 4	4500	14.0	1	83	71	29.99
21R	1879	7-19-74	73	CHEV	IMPA	8	307	2	1	1	26	600	1	29	0	1 4	4500	14.0	1	86	71	31.03
22	1842	7- 3-74	73	CHEV	MONT	8	350	4	1	1	25	650	1	30	14	1	4000	13.2	1	80	67	30.10
23	2030	8-28-74	73	CHEV	IMPA	8	400	2	1	1	22	650	1	32	12	1 4	5000	14.7	1	81	68	30.01
23R	2035	8-29-74	73	CHEV	IMPA	8	400	2	1	1	22	650	1	32	12	1 4	5000	14.7	1	81	68	29.99
24	1877	7-18-74	73	CHEV	IMPE	8	454	4	1	1	23	600	1	29	25	1 4	5500	15.3	1	84	69	30.07
24R	1881	7-21-74	73	CHEV	IMPE	8	454	4	1	1	23	600	1	29	25	1 4	5500	15.3	1	84	70	30.16
25	1822	6-24-74	73	DATS	1200	4	71	2	4	2	10	725	1	40	11	1	2000	8.3	2	86	68	30.00
26	1858	8-14-74	73	DODG	SWIN	6	225	1	1	1	16	700	1	29	4	1 4	3000	10.3	2	78	68	30.07
26R	1952	8-14-74	73	DODG	SWIN	6	225	1	1	1	16	700	1	29	4	1 4	3000	10.3	2	81	63	30.07
27	2031	8-29-74	73	DODG	VAN	8	318	2	1	1	18	625	1	29	7	1	3500	12.7	1	80	67	30.01
28	1866	7-16-74	73	FORD	PINT	4	122	2	4	1	11	1025	1	45	12	1 4	2500	9.4	2	84	72	29.93
28R	1871	7-17-74	73	FORD	PINT	4	122	2	4	1	11	1025	1	45	12	1 4	2500	9.4	2	84	78	30.05
29	1998	8-22-74	73	FORD	CUST	8	351	1	1	2	20	450	1	33	6	1	3500	11.2	2	77	66	30.00
30	2007	8-23-74	73	FORD	MAVE	8	302	2	1	1	15	700	1	29	6	1	3000	11.3	1	79	67	30.00
31	1939	8- 7-74	73	FORD	TORI	8	351	4	1	1	23	600	1	29	9	1 4	4000	12.0	2	78	69	30.00
31R	1944	8- 8-74	73	FORD	TORI	8	351	4	1	1	23	650	1	33	9	1 4	4000	12.0	2	70	69	30.00
32	1849	7- 9-74	73	FORD	GALA	8	351	2	1	1	22	650	1	31	9	1 4	4500	14.0	1	79	66	30.00
32R	1852	7-10-74	73	FORD	GALA	8	351	2	1	1	22	650	1	31	9	1 4	4500	14.0	1	81	67	30.00
33	1838	7- 1-74	73	FORD	STAW	8	400	2	1	1	22	600	1	29	7	1 4	4000	13.2	1	82	67	29.91
33R	1841	7- 2-74	73	FORD	STAW	8	400	2	1	1	22	600	1	28	7	1 4	4000	13.2	1	77	65	29.93
34	1840	7- 2-74	73	FORD	GALA	8	400	2	1	1	22	650	1	29	14	1 4	4500	14.0	1	80	67	29.92
34R	1843	7- 3-74	73	FORD	GALA	8	400	2	1	1	22	650	1	29	14	1 4	4500	14.0	1	80	65	30.16
35	1923	8- 1-74	73	MAZD	RX-2	4	70	4	4	2	17	700	1	50	4	1	2500	9.4	2	79	68	30.05

[illegible]

[illegible]

[illegible]

VEH	RUN	DATE	YR	MAKE	[illegible]	[illegible]	I	DB	WB	BAROM
36	1961	8-14-74	73	MERC	5500	14.0	1	76	66	30.08
36R	1963	8-15-74	73	MERC	5500	14.0	1	77	66	30.07
37	1991	8-20-74	73	OLDS	4000	13.2	1	74	66	30.03
37R	1994	8-21-74	73	OLDS	4000	13.2	1	73	67	30.09
38	1925	8- 1-74	73	OLDS	5500	14.7	1	86	71	30.06
39	1883	7-22-74	73	PLYM	3000	10.3	2	84	71	30.07
39R	1888	7-23-74	73	PLYM	3000	10.3	2	84	69	30.05
40	2023	8-27-74	73	PLYM	4000	13.2	1	76	67	30.05
41	2015	8-26-74	73	PONT	3500	12.3	1	81	70	30.03
42	1939	8-27-74	73	PONT	3500	12.3	1	84	69	29.97
43	1929	8- 4-74	73	TOYO	2500	9.4	2	82	72	30.03
43R	1931	8- 5-74	73	TOYO	2500	9.4	2	80	73	30.03
44	2016	8-26-74	73	VOLK	2250	8.8	2	82	70	30.03
44R	2025	8-27-74	73	VOLK	2250	8.8	2	79	68	30.04
45	1869	7-17-74	73	BUIC	3500	10.3	2	85	70	30.05
46	1690	5-15-74	72	BUIC	4500	14.0	1	76	64	30.04
47	1705	5-22-74	72	BUIC	5000	14.7	1	83	65	30.05
48	1837	7- 1-74	72	CHEV	2500	9.4	2	81	67	29.91
49	1715	5-24-74	72	CHEV	3500	11.2	2	84	66	30.14
50	2029	8-29-74	72	CHEV	3500	11.2	2	78	65	30.01
51	1827	6-27-74	72	CHEV	3500	12.3	1	80	67	29.99
52	1851	7-10-74	72	CHEV	3500	12.3	1	81	67	30.07
53	2022	8-27-74	72	CHEV	5000	14.7	1	77	67	30.05
54	1607	5-21-74	72	CHEV	4500	14.0	1	81	64	30.15
55	1809	6-19-74	72	DATS	2500	9.4	2	80	66	30.07
56	1719	5-23-74	72	DODG	3500	11.2	2	78	65	29.99
57	1977	8-16-74	72	DODG	3500	11.2	1	79	67	30.18
58	1832	6-28-74	72	FORD	2500	9.4	2	79	66	29.98
59	1801	6-17-74	72	FORD	3000	10.3	2	80	63	30.06
60	1926	8- 1-74	72	FORD	4000	13.2	2	81	69	30.06
61	1692	5-17-74	72	FORD	4000	13.2	1	81	65	30.07
62	1825	6-25-74	72	FORD	4500	14.0	1	80	66	30.09
63	1865	7-16-74	72	FORD	4500	14.0	1	79	68	30.01
64	2006	8-23-74	72	LINC	5000	14.7	1	76	65	30.06
65	1720	5-29-74	72	MERC	5000	14.7	1	82	60	30.03
66	2043	9- 3-74	72	OLDS	3500	12.3	1	77	65	29.94
67	1917	7-30-74	72	OLDS	4500	14.0	1	81	71	30.05
68	1921	7-31-74	72	OPEL	2250	8.8	2	84	72	30.05
69	1857	7-12-74	72	PLYM	3000	10.3	2	84	66	30.09
70	1821	6-21-74	72	PLYM	4000	13.2	1	80	66	29.98
71	1814	6-20-74	72	PLYM	3500	12.3	1	84	64	30.24
72	1854	[illegible]	72	[illegible]	4500	14.0	1	75	69	30.02
73	1855	7-11-74	72	TOYO	2250	8.8	2	87	69	30.07
74	1846	7- 9-74	72	VOLK	2250	8.8	2	80	66	30.12
75	1864	7-15-74	72	VOLV	3000	9.7	2	87	70	30.05
76	1995	8-21-74	71	BUIC	3000	10.3	2	79	68	30.09
77	1997	8-21-74	71	BUIC	3500	12.3	1	78	67	30.07
78	1467	3-22-74	71	BUIC	4500	14.0	1	78	62	30.07
79	1847	7- 9-74	71	CADI	5000	14.7	1	80	66	30.15
80	1561	4-12-74	71	CHEV	2500	9.4	2	77	63	30.17

[illegible]

LISTING OF VEHICLE [illegible]

(LOS ANGELES)

VEH	ODO	DATE	YR	MAKE	MODL	C	CID	[illegible]	T	A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	DB	WB	BAROM
81	1556	7-11-74	71	CHEV	CAMA	8	307	2	1	1	17	600	1	28	10		3500	11.[illegible]	2	83	68	30.10
82	1520	4- 2-74	71	CHEV	NOVA	8	350	2	1	1	24	575	1	27	12		4500	12.7	2	75	62	30.05
83	1510	4- 2-74	71	CHEV	NOVA	8	350	2	1	1	16	575	1	22	8		3500	12.3	1	77	61	30.08
84	1542	4-19-74	71	CHEV	NOVA	8	350	4	1	1	24	525	1	51	-2		4000	13.[illegible]	1	79	58	30.14
85	1460	3-18-74	71	[illegible]	[illegible]	8	400	2	1	1	27	495	1	29	12		5000	14.7	1	78	61	30.09
86	2041	9- 3-74	71	[illegible]	[illegible]	8	[illegible]	4	1	1	27	650	1	40	0		4500	15.0	1	78	68	29.9[illegible]
87	2007	12-13-74	71	[illegible]	[illegible]	4	71	2	4	2	10	475	1	42	5		2000	8.[illegible]	2	76	65	30.25
88	1503	3-14-74	71	[illegible]	[illegible]	8	318	2	1	1	17	525	1	34	0		3500	12.1	1	81	65	30.42
89	1159	7-12-74	71	FORD	PINT	4	122	2	4	2	10	500	2	45	5		2250	8.[illegible]	2	82	67	30.08
90	1450	3-14-74	71	FORD	MAVE	6	200	1	1	2	16	530	1	34	5		2250	9.9	2	79	63	30.0[illegible]
91	1535	7- 1-74	71	FORD	MUST	8	302	2	1	1	20	650	1	33	0		3500	11.2	2	81	66	29.99
92	1513	4-29-74	71	FORD	MUST	8	351	4	1	1	20	500	1	35	5		3500	12.3	1	79	63	30.1[illegible]
93	1525	3-13-74	71	FORD	LTD	8	400	2	1	1	23	450	1	30	7		4000	13.[illegible]	1	79	61	30.01
94	1550	5-13-74	71	MERC	[illegible]	8	[illegible]	2	1	1	23	550	1	31	-11		4500	14.[illegible]	1	77	65	30.13
95	1586	3-19-74	71	[illegible]	[illegible]	8	[illegible]	4	1	1	34	525	1	30	5		5000	14.7	1	77	66	30.0[illegible]
96	1408	3-20-74	71	[illegible]	[illegible]	8	455	4	1	1	25	550	1	28	11		4500	14.0	1	81	64	30.11
97	2053	8-22-74	71	[illegible]	[illegible]	6	225	1	1	1	17	[illegible]	1	43	[illegible]		3500	12.[illegible]	2	79	67	30.0[illegible]
98	1596	4-25-74	71	[illegible]	[illegible]	8	318	2	1	1	17	300	1	32	[illegible]		3500	12.3	1	77	59	30.24
99	1572	4-22-74	71	[illegible]	[illegible]	8	[illegible]	2	1	1	17	600	1	28	10		3500	12.3	1	77	61	30.10
100	1935	8- 2-74	71	BUIC	[illegible]	8	455	2	1	1	26	400	1	36	0		4500	14.0	1	80	70	30.02
101	1961	7-12-74	71	TOYO	[illegible]	4	71	1	4	2	11	1200	1	42	2		2000	8.3	2	83	68	30.09
102	1535	4-24-74	71	VOLK	[illegible]	4	97	1	4	2	11	[illegible]	1	55	-2		2250	8.[illegible]	2	80	62	30.19
103	1486	3-20-74	70	BUIC	ESTA	8	455	4	1	1	24	725	1	31	7		5000	14.7	1	83	65	30.20
104	1563	5-15-74	70	CHEV	CAMA	8	350	2	1	2	18	[illegible]	1	33	0		3500	11.2	2	80	66	30.04
105	1527	4- 4-74	70	CHEV	[illegible]	8	307	2	1	2	18	525	1	17	15		3500	11.2	2	85	59	30.23
106	1642	5- 1-74	70	CHEV	NOVA	8	250	2	1	1	23	550	1	29	[illegible]		4000	12.0	2	81	65	30.13
107	1972	8-16-74	70	CHEV	[illegible]	8	350	4	1	1	23	475	1	36	-4		3500	12.3	1	78	67	30.17
108	1525	4- 4-74	70	CHEV	[illegible]	8	350	4	1	1	23	575	1	15	-2		3500	12.3	1	78	60	30.20
109	1436	3- 6-74	70	CHEV	MONT	8	400	2	1	1	20	575	1	30	2		4000	13.2	1	79	63	29.95
110	1540	4-12-74	70	DODG	CHAR	8	383	2	1	1	19	670	3	20	12		3500	12.3	1	78	62	30.00
111	1592	4-25-74	70	FORD	MAVE	6	200	1	3	2	15	650	1	44	4		2750	9.9	2	80	61	30.10
112	1512	4- 1-74	70	FORD	TORI	8	302	2	1	1	17	600	1	26	15		4000	12.0	2	81	64	30.13
113	1511	3-29-74	70	FORD	GALA	8	351	2	1	1	27	600	1	30	2		4000	12.0	2	81	69	30.31
114	1533	4- 3-74	70	FORD	TORI	8	351	2	1	1	20	650	1	33	4		3500	12.3	1	77	63	30.16
115	1470	3-22-74	70	FORD	[illegible]	8	[illegible]	2	1	1	27	[illegible]	1	20	[illegible]		4500	14.0	1	75	62	30.18
116	1559	4-17-74	70	MERC	MARQ	8	429	4	1	1	[illegible]	530	1	[illegible]	[illegible]		4500	14.0	1	79	65	30.12
117	1575	4-24-74	70	OLDS	CUTL	8	350	4	1	1	20	575	1	[illegible]	10		[illegible]	13.[illegible]	1	79	62	30.04
118	1938	8-19-74	70	OLDS	442	8	455	4	1	2	19	475	1	33	[illegible]		4000	13.2	1	77	66	30.00
119	1650	5- 3-74	70	PLYM	SATE	8	318	2	1	2	17	550	1	29	12		4000	13.[illegible]	1	80	63	30.10
120	1959	7- 9-74	70	PLYM	[illegible]	8	318	2	1	1	17	[illegible]	1	30	[illegible]		3500	11.2	2	81	69	30.14
121	1533	4-22-74	70	PONT	LEMA	8	350	2	1	1	23	[illegible]	1	[illegible]	[illegible]		3500	12.3	1	75	63	30.05
122	1556	4-15-74	70	PONT	[illegible]	8	400	4	1	1	[illegible]	[illegible]	1	57	[illegible]		4000	13.2	1	85	67	30.10
123	1537	4- 9-74	70	TOYO	[illegible]	4	113	2	4	2	11	[illegible]	1	57	[illegible]		2500	9.4	2	77	61	30.13
124	1577	4-24-74	70	VOLK	[illegible]	4	97	1	4	2	11	[illegible]	1	40	4		2000	8.3	2	79	62	30.12
125	1915	7-30-74	69	AMER	AMBA	8	343	4	1	1	22	575	2	31	[illegible]		4500	13.2	1	84	71	30.00
126	1236	7- 1-74	69	BUIC	SKYL	8	350	2	1	1	22	650	1	28	0		3500	12.3	1	81	57	30.31
127	1330	8-20-74	69	CHEV	NOVA	8	307	2	1	2	20	495	1	25	5		4000	12.0	2	77	65	30.00
128	1546	4-11-74	69	CHEV	CAMA	8	307	2	1	2	18	450	1	27	5		3500	11.2	2	80	64	30.14
129	1905	8-15-74	69	CHEV	[illegible]	8	327	2	1	1	24	525	1	33	1		4000	12.0	2	78	66	30.10
130	1552	4-15-74	69	CHEV	MALI	8	350	4	1	1	20	[illegible]	1	31	4		3500	11.2	2	80	63	30.14

APPENDIX C

LISTING OF VEHICLE AND TEST DATA ITEMS

LOS ANGELES

VEH	RUN	DATE	YR	MAKE	MODL	C	CID	M	T	A	ET	IDRPM	P	DW	IGN	TESTS	INRT	RLHP	I	DB	WB	BAROM
131	1524	4- 3-74	69	CHEV	IMPA	8	350	4	1	1	24	425	1	30	8		4000	13.2	1	78	63	30.12
132	1989	8-19-74	69	CHEV	IMPA	8	327	2	1	2	24	500	1	27	8		4000	13.2	1	78	67	30.01
133	1555	5- 2-74	69	CHRY	TOWN	8	383	2	1	1	24	575	1	20	27		4500	14.0	1	82	65	30.12
134	1485	3-26-74	69	DODG	DART	6	225	1	1	2	18	525	1	43	-5		3000	10.3	2	76	61	30.15
135	1479	3-25-74	69	FORD	STAW	8	302	2	1	2	20	625	1	33	8		3500	11.2	2	80	65	30.20
136	1473	3-21-74	69	FORD	FAIR	8	302	2	1	2	20	680	1	23	4		3500	11.2	2	76	62	30.20
137	1501	3-28-74	69	FORD	MUST	8	351	2	1	1	20	600	1	22	6		3500	11.2	2	79	65	30.43
138	1434	3- 6-74	69	FORD	MUST	8	351	2	1	1	18	525	1	20	3		3500	12.3	1	78	63	30.00
139	1541	4-10-74	69	FORD	STAW	8	390	2	1	1	25	550	1	32	13		4500	14.0	1	80	59	30.13
140	1942	8- 8-74	69	MERC	MONT	8	351	2	1	1	20	450	1	99	6		3500	12.3	1	80	59	29.90
141	1634	4-29-74	69	OLDS	DELT	8	455	2	1	2	25	625	1	33	8		4500	14.0	1	80	65	30.16
142	1572	4-22-74	69	PLYM	BARR	8	318	2	1	1	18	875	1	25	0		3500	11.2	2	79	64	30.10
143	1453	3-13-74	69	PONT	TEMP	8	350	2	1	1	22	625	1	31	8		3500	12.3	1	77	65	30.10
144	1658	5- 3-74	69	PONT	GRAN	8	400	4	1	1	22	575	1	32	0		4000	13.2	1	80	63	30.10
145	1570	4-22-74	69	VOLK	BEET	4	91	1	4	1	11	800	1	55	-7		2000	9.3	2	82	65	30.16
146	1477	3-22-74	68	AMER	RAMB	6	232	1	1	2	16	600	1	32	4		3000	10.3	2	76	61	30.13
147	1502	3-28-74	68	BUIC	ELEC	8	430	4	1	1	25	550	1	20	-5		4500	14.0	1	83	67	30.44
148	1967	8-15-74	68	CADI	COUP	8	472	4	1	1	26	550	1	30	6		5000	14.7	1	79	66	30.10
149	1544	4-11-74	68	CHEV	BISC	6	250	1	1	2	20	650	1	30	2		3500	11.2	2	84	64	30.16
150	1563	4-18-74	68	CHEV	IMPA	8	327	2	1	1	24	575	1	32	6		4000	12.0	2	77	60	30.10
151	1555	4-16-74	68	CHEV	NOVA	8	327	4	1	1	12	475	1	31	5		3500	11.2	2	78	51	30.08
152	1498	3-27-74	68	CHEV	CHEL	8	307	2	1	1	20	550	1	34	1		3500	11.2	2	79	65	30.25
153	1957	8-13-74	68	CHEV	MALI	8	307	2	1	2	20	550	1	20	7		3500	12.3	1	78	57	30.13
154	1556	4-17-74	68	DODG	CORO	8	383	4	1	1	10	600	1	23	5		4000	13.2	1	80	64	30.17
155	1435	3- 6-74	68	FORD	MUST	6	200	1	1	2	13	525	1	44	-3		3000	10.3	2	85	65	29.98
156	1452	3-13-74	68	FORD	MUST	8	289	2	1	1	16	400	1	30	6		3000	10.3	2	79	65	30.10
157	1656	5- 2-74	68	FORD	MUST	8	302	2	1	2	16	575	1	26	5		3000	10.3	2	80	63	30.10
158	1510	3-29-74	68	FORD	LTD	8	390	2	1	1	25	450	1	30	0		4000	13.2	1	79	65	30.37
159	1557	4-17-74	68	MERC	COUG	8	302	2	1	1	16	525	1	31	7		3500	12.3	1	79	64	30.18
160	1927	8- 2-74	68	OLDS	CUTL	8	350	4	1	1	20	525	1	20	3		4000	13.2	1	82	70	30.03
161	1965	8-15-74	68	PLYM	VALI	8	318	2	1	1	18	750	1	30	-8		3000	10.3	2	77	66	30.10
162	1568	4-19-74	68	PONT	CATA	8	400	2	1	1	27	600	1	31	7		4500	14.0	1	78	60	30.12
163	1548	4-12-74	68	VOLK	BUG	4	91	1	4	2	11	1000	1	68	-4		2000	9.3	2	76	61	30.00
164	1987	8-19-74	67	AMER	WAGO	8	290	2	1	2	22	575	2	20	5		4000	12.0	2	77	66	30.00
165	1458	3-15-74	67	BUIC	SKYL	8	340	4	1	1	20	425	1	30	10		3500	11.2	2	83	67	30.22
166	1996	7-25-74	67	CADI	COUP	8	429	4	1	1	25	550	1	28	6		5000	14.7	1	85	71	30.06
167	1517	4- 2-74	67	CHEV	CHEL	6	250	1	1	2	20	575	1	35	8		3500	11.2	2	77	63	30.06
168	1660	5- 3-74	67	CHEV	NOVA	8	283	2	1	1	15	600	1	20	10		3000	10.3	2	78	62	30.10
169	1532	4- 5-74	67	CHEV	CHEL	8	283	2	1	2	20	500	1	27	-8		3500	11.2	2	84	65	30.20
170	1521	4- 3-74	67	CHEV	MALI	8	327	4	1	1	20	650	1	33	2		3500	12.3	1	78	53	30.14
171	1992	8-21-74	67	CHRY	NEWP	8	383	2	1	1	25	575	1	20	6		4000	13.2	1	78	66	30.06
172	1497	3-26-74	67	DODG	DART	8	318	2	1	2	21	675	1	31	-2		3500	11.2	2	76	62	30.20
173	1534	4- 8-74	67	FORD	MUST	8	289	2	1	2	16	525	1	34	1		3000	10.3	2	81	65	30.13
174	1652	5- 2-74	67	FORD	FAIR	8	289	2	1	1	20	550	1	30	10		3500	11.2	2	77	62	30.13
175	1531	4- 5-74	67	FORD	GALA	8	390	2	1	1	25	600	1	22	6		4000	13.2	1	85	64	30.20
176	1955	8-13-74	67	MERC	COUG	8	390	2	1	1	17	525	1	27	5		3500	12.3	1	77	67	30.11
177	1536	4- 9-74	67	OLDS	TORO	8	425	4	1	1	24	400	1	32	-4		4500	14.0	1	80	63	30.10
178	1604	4-25-74	67	PLYM	BARR	6	225	1	1	1	19	600	1	44	6		3000	10.3	2	77	60	30.25
179	1908	7-29-74	67	PONT	LEMA	8	326	2	1	2	22	550	1	28	8		3500	11.2	2	77	65	30.02
180	1535	4- 8-74	67	VOLK	KARM	4	91	1	4	2	11	800	1	47	0		2000	9.3	2	81	65	30.12

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

ST. LOUIS

VEH	RUN	DATE	YR	MAKE	MODL	C	CID	V	T	A	FT	IRPM	P	DW	IGN	TESTS	INRT	RLHP	L	DB	WB	BAROM
1	1314	6- 7-74	74	BUIC	LIMI	8	455	4	1	1	26	700	1	28	2	1	5000	14 7	1	77	68	28 95
2	1411	8-14-74	74	CHEV	MONT	8	400	2	1	1	22	750	1	30	4	1	4000	13 2	1	82	69	29 44
3	1389	7-23-74	74	CHEV	CAME	8	350	2	1	2	21	625	1	29	8	1	4000	13 2	1	79	65	29 35
4	1440	9- 3-74	74	DODG	DART	6	225	1	1	2	16	675	1	99	-1	1	3500	11 2	2	79	69	29 45
5	1442	9- 4-74	74	FORD	TORI	8	302	2	1	1	27	600	1	99	10	1	4000	12 0	2	72	64	29 52
6	1409	8-13-74	74	FORD	CUST	8	351	2	1	1	22	725	1	32	8	1	4500	14 0	1	77	68	29 40
7	1441	9- 4-74	74	OLDS	CUTL	8	350	4	1	1	26	775	1	31	10	1	4000	13 2	1	78	65	29 56
8	1399	8- 1-74	74	PLYM	SATI	8	318	2	1	1	20	775	1	99	0	1	4000	13 2	1	81	70	29 35
9	1404	8- 7-74	74	PONT	CATA	8	400	2	1	1	26	675	1	30	8	1	4500	14 0	1	75	66	29 42
10	1329	6-14-74	74	VOLK	BEET	4	97	1	4	1	11	110	1	43	5	1	2250	8 8	2	79	70	29 25
11	1330	6-14-74	73	AMER	HORN	6	258	1	1	1	16	500	1	34	-2	1	3000	11 3	1	77	70	29 20
12	1309	6- 6-74	73	BUIC	CNTY	8	350	2	1	1	22	700	1	28	6	1	4000	13 2	1	77	68	29 00
13	1421	8-21-74	73	BUIC	ESTA	8	455	4	1	1	22	700	1	29	5	1	5500	15 3	1	83	70	29 44
14	1437	8-30-74	73	CADI	DE V	8	472	4	1	1	28	625	1	29	7	1	5500	15 3	1	76	66	29 37
15	1423	8-22-74	73	CAPR	CAPR	4	122	2	1	1	12	775	1	47	9	1	2500	9 4	2	78	67	29 46
16	1445	9- 5-74	73	CHEV	VEGA	4	140	2	1	1	11	775	1	35	10	1	2500	9 4	2	75	65	29 46
17	1273	5-22-74	73	CHEV	CHEL	6	250	1	3	2	22	750	1	34	5	1	4000	12 0	2	79	68	29 17
18	1317	6-10-74	73	CHEV	NOVA	8	307	2	1	2	16	700	1	30	9	1	3500	11 2	2	75	65	29 20
19	1405	8- 8-74	73	CHEV	CHEL	8	307	2	1	1	22	700	1	31	7	1	4000	13 2	1	74	65	29 41
20	1268	5-21-74	73	CHEV	MONT	8	350	2	1	1	22	775	1	29	10	1	4000	12 0	2	79	72	29 25
21	1281	5-28-74	73	CHEV	MALI	8	350	2	1	1	22	625	1	28	10	1	4000	13 2	1	75	65	29 15
22	1397	7-31-74	73	CHEV	MONT	8	350	4	1	1	22	600	1	32	10	1	4000	13 2	1	81	68	29 40
23	1398	8- 1-74	73	CHEV	CAPR	8	400	2	1	1	26	625	1	30	9	1	4500	14 0	1	74	64	29 35
24	1378	7-17-74	73	CHRY	NEWP	8	400	2	1	1	23	550	1	99	7	1	4500	14 0	1	83	70	29 45
25	1425	8-26-74	73	DATS	1600	4	97	2	4	2	12	1000	1	55	7	1	2500	9 4	2	76	70	29 41
26	1438	9- 3-74	73	DODG	DART	8	318	2	1	1	20	650	1	99	0	1	3000	10 3	2	80	68	29 48
27	1260	5-17-74	73	DODG	DART	8	318	2	1	1	16	600	1	99	0	1	3500	12 3	1	75	64	29 30
28	1243	5-13-74	73	FORD	PINT	4	122	2	4	1	11	575	1	57	10	1	2750	9 9	2	79	65	28 90
29	1413	8-15-74	73	FORD	MAVE	6	200	1	1	2	15	650	1	35	9	1	3000	10 3	2	79	68	29 45
30	1264	5-20-74	73	FORD	TORI	8	302	2	1	1	23	575	1	26	11	1	4000	13 2	1	82	70	29 30
31	1288	5-30-74	73	FORD	GALA	8	351	2	1	1	22	550	1	30	5	1	4500	12 7	2	80	67	29 00
32	1394	7-27-74	73	FORD	TORI	8	351	2	1	1	23	625	1	32	7	1	4000	13 2	1	74	65	29 35
33	1220	5- 6-74	73	FORD	LTD	8	400	2	1	1	22	500	1	29	1	1	4500	14 0	1	76	64	29 30
34	1285	5-29-74	73	FORD	LTD	8	400	2	1	1	21	525	1	25	17	1	5000	14 7	1	80	75	29 05
35	1412	8-14-74	73	MAZD	RX3	0	70	4	4	2	16	2000	1	58	10	1	2500	9 4	2	83	79	29 40
36	1432	8-28-74	73	MERC	MARQ	8	429	4	1	1	22	425	1	21	17	1	5000	14 7	1	75	65	29 25
37	1298	6- 3-74	73	OLDS	CUTL	8	350	4	1	1	27	525	1	29	12	1	4000	13 2	1	82	68	29 40
38	1333	6-17-74	73	OLDS	DELT	8	455	4	1	1	26	675	1	30	13	1	4500	14 0	1	75	60	29 20
39	1354	6-26-74	73	PLYM	SATE	8	318	2	1	1	20	675	1	99	0	1	4000	12 0	2	79	67	29 45
40	1390	7-23-74	73	PLYM	SPOR	8	360	2	1	1	23	900	1	99	7	1	5000	14 7	1	80	71	29 35
41	1324	6-12-74	73	PONT	LEMA	8	350	2	1	1	22	700	1	30	11	1	4000	13 2	1	80	66	29 40
42	1406	8- 8-74	73	PONT	SAFA	8	400	2	1	1	22	650	1	29	12	1	5000	14 7	1	83	72	29 36
43	1417	8-20-74	73	TOYO	CORO	4	97	2	4	2	11	750	1	50	15	1	2250	8 8	2	73	67	29 46
44	1403	8- 7-74	73	VOLK	BEET	4	97	1	4	2	11	350	1	44	11	1	2000	8 3	2	72	64	29 45
45	1418	8-20-74	73	VOLK	412	4	103	0	1	2	13	550	1	50	25	1	4000	12 0	2	79	72	29 43
46	1326	6-13-74	72	BUIC	SKYL	8	350	4	1	1	22	750	1	27	5	1	4000	13 2	1	75	66	29 30
47	1305	6- 5-74	72	BUIC	ELEC	8	455	4	1	1	25	600	1	31	-1	1	5000	14 7	1	78	64	29 15
48	1408	8- 9-74	72	CHEV	VEGA	4	140	2	1	2	11	675	1	31	8	1	2500	9 4	2	76	66	29 32
49	1400	8- 1-74	72	CHEV	NOVA	6	250	1	1	2	16	600	1	59	-4	1	3000	10 3	2	84	73	29 30
50	1216	5- 3-74	72	CHEV	NOVA	8	307	2	1	1	16	625	1	30	10	1	3500	11 2	2	75	65	29 25

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

ST LOUIS

VEH	RUN	DATE	YR	MAKE	MODL	C	CID	V	T	A	FT	IRPM	P	DW	IGN	TESTS	INRT	RLHP	L	DB	WB	BAROM
51	1257	5-16-74	72	CHEV	KING	8	350	2	1	1	22	400	1	30	13	1	5000	14 7	1	79	67	29 10
52	1321	6-11-74	72	CHEV	BISC	8	350	2	1	1	23	650	1	28	5	1	4500	14 0	1	76	64	29 40
53	1493	10- 1-74	72	CHEV	VEGA	4	140	1	1	2	11	700	1	31	15	1	2500	9 4	2	76	62	29 33
54	1247	5-14-74	72	CHEV	KING	8	400	2	1	1	23	575	1	31	9	1	5000	14 7	1	77	64	28 90
55	1443	9- 4-74	72	DATS	510	4	97	2	4	2	12	800	1	45	13	1	2250	8 8	2	71	64	29 55
56	1386	7-22-74	72	DODG	TRAD	8	318	2	1	1	23	525	1	29	4	1	3500	11 2	2	80	68	29 25
57	1436	8-29-74	72	DODG	DART	6	225	1	1	2	16	600	1	34	3	1	3000	11 3	1	75	66	29 29
58	1323	6-12-74	72	FORD	PINT	4	122	2	1	1	12	625	1	39	4	1	2500	9 4	2	77	62	29 40
59	1230	5- 9-74	72	FORD	MUST	8	302	2	1	1	20	800	1	27	8	1	3500	11 2	2	82	67	29 20
60	1377	7-17-74	72	FORD	MUST	8	351	2	1	1	20	500	1	28	7	1	3500	11 2	2	81	67	29 50
61	1387	7-22-74	72	FORD	CUST	8	351	2	1	1	21	575	1	22	14	1	4500	14 0	1	80	68	29 20
62	1229	5- 8-74	72	FORD	LTD	8	400	2	1	1	21	575	1	36	1	1	4500	14 0	1	77	60	29 05
63	1376	7-16-74	72	FORD	THUN	8	429	4	1	1	23	600	1	29	11	1	4500	14 0	1	84	76	29 40
64	1414	8-15-74	72	LINC	MARK	8	460	4	1	1	23	600	1	23	11	1	5000	14 7	1	80	72	29 50
65	1396	7-27-74	72	MERC	MONR	8	400	2	1	1	22	475	1	32	8	1	4500	14 0	1	80	70	29 40
66	1384	7-19-74	72	OLDS	DELT	8	350	2	1	1	20	575	1	28	5	1	4500	14 0	1	82	72	29 50
67	1420	8-21-74	72	OLDS	NINE	8	455	4	1	1	24	600	1	31	13	1	5000	14 7	1	79	68	29 49
68	1426	8-26-74	72	OPEL	1900	4	116	2	4	1	12	850	1	54	17	1	2250	8 8	2	83	76	29 36
69	1327	6-13-74	72	PLYM	FRY3	8	360	2	1	1	25	575	1	99	-2	1	4000	13 2	1	78	68	29 30
70	1252	5-15-74	72	PLYM	FRY3	8	318	2	1	1	21	500	1	29	6	1	4000	13 2	1	82	62	29 22
71	1292	5-31-74	72	PONT	VENT	8	350	2	1	1	16	750	1	30	6	1	3500	12 3	1	79	66	29 10
72	1433	8-29-74	72	PONT	GRAN	8	455	4	1	1	26	600	1	99	10	1	4000	13 2	1	76	68	29 30
73	1366	7- 2-74	72	TOYO	CELI	4	120	2	4	1	13	625	1	54	5	1	2500	9 4	2	83	70	29 25
74	1392	7-26-74	72	VOLK	S BE	4	97	1	4	2	11	1075	1	51	10	1	2250	8 8	2	74	63	29 35
75	1416	8-16-74	72	VOLK	SUPE	4	97	1	4	2	11	825	1	53	14	1	2250	8 8	2	79	70	29 40
76	1168	4-17-74	71	AMER	JAVE	8	304	2	1	1	16	675	1	32	1		3500	11 2	2	76	63	29 55
77	1385	7-22-74	71	BUIC	SKYL	8	350	2	1	1	20	650	1	28	7		4000	13 2	1	80	70	29 20
78	1372	7-15-74	71	BUIC	ELEC	8	455	4	1	1	25	750	1	33	-1		4500	14 0	1	82	72	29 30
79	1104	3-21-74	71	CADI	DEVI	8	472	4	1	1	28	575	1	28	10		5000	14 7	1	71	64	29 40
80	1424	8-23-74	71	CHEV	VEGA	4	140	1	1	2	11	625	1	29	7		2500	9 4	2	75	67	29 50
81	1395	7-27-74	71	CHEV	CAME	8	307	2	1	1	17	600	1	30	10		3500	11 2	2	78	68	29 40
82	1102	3-20-74	71	CHEV	IMPA	8	350	2	1	1	24	535	1	25	6		4000	12 0	2	72	59	29 30
83	1135	4- 5-74	71	CHEV	IMPA	8	350	2	1	1	24	525	1	28	10		4500	14 0	1	73	61	29 40
84	1402	8- 6-74	71	CHEV	IMPA	8	350	4	1	1	24	650	1	30	7		4000	13 2	1	77	67	29 45
85	1115	3-27-74	71	CHEV	CAPR	8	400	2	1	1	24	725	1	31	4		4500	14 0	1	72	60	29 40
86	1179	4-22-74	71	CHRY	IMPE	8	440	4	1	1	23	575	1	32	8		5000	14 7	1	78	67	29 15
87	1236	5-10-74	71	DATS	COUP	4	71	2	4	2	11	700	1	52	18		2000	8 3	2	75	60	29 20
88	1320	6-11-74	71	DODG	CORO	8	318	2	1	1	21	675	1	27	-2		4000	13 2	1	75	65	29 38
89	1371	7-15-74	71	FORD	PINT	4	122	2	4	2	11	800	1	46	-7		2250	8 8	2	73	66	29 35
90	1316	6-10-74	71	FORD	MAVE	6	200	1	1	1	15	625	1	39	3		2750	9 9	2	72	61	29 15
91	1100	3-18-74	71	FORD	MUST	8	302	2	1	1	20	450	1	35	-2		3500	11 2	2	72	60	29 10
92	1148	4-10-74	71	FORD	CUST	8	351	2	1	1	23	400	1	33	2		4000	13 2	1	76	59	29 30
93	1428	8-27-74	71	FORD	MAVE	8	302	2	1	2	15	425	1	38	5		3000	11 3	1	77	66	29 39
94	1434	8-29-74	71	MERC	MARO	8	429	2	1	1	23	500	1	30	2		4500	14 0	1	72	67	29 31
95	1349	6-24-74	71	OLDS	CUTL	8	350	4	1	1	20	550	1	30	11		3500	12 3	1	76	63	29 45
96	1177	4-19-74	71	OLDS	TORO	8	455	4	1	1	24	525	1	30	8		5000	14 7	1	77	65	29 45
97	1379	7-18-74	71	PLYM	DUST	6	225	1	3	2	17	750	1	42	0		3000	10 3	2	81	70	29 50
98	1393	7-27-74	71	PLYM	SATE	8	318	2	1	1	21	700	1	36	-2		4000	13 2	1	75	65	29 35
99	1213	5- 2-74	71	PONT	FIRE	8	350	2	1	1	17	550	1	30	15		3500	12 3	1	75	67	29 00
100	1140	4- 8-74	71	PONT	CATA	8	400	2	1	1	24	600	1	31	7		4500	14 0	1	73	60	29 35

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

ST LOUIS

VEH	RUN	DATE	YR	MAKE	MODL	C	CID	V	T	A	FT	IRPM	P	DW	IGN	TESTS	INRT	RLHP	L	DB	WB	BAROM
101	1184	4-23-74	71	TOYO	CORO	4	71	1	4	1	13	800	1	43	4		2500	9 4	2	75	63	29 40
102	1190	4-24-74	71	VOLK	BEET	4	97	1	4	2	11	1000	1	54	5		2000	8 3	2	77	60	29 60
103	1370	7-12-74	70	BUIC	ELEC	8	455	4	1	1	25	600	1	23	6		4500	14 0	1	83	75	29 40
104	1435	8-29-74	70	CHEV	IMPA	8	350	2	1	1	25	600	1	27	6		4000	12 0	2	73	67	29 30
105	1130	4- 4-74	70	CHEV	CHEL	8	307	2	1	1	20	625	1	30	6		3500	11 2	2	72	58	28 92
106	1341	6-20-74	70	CHEV	KING	8	350	2	1	1	22	575	1	27	7		4500	12 7	2	79	68	29 25
107	1331	6-17-74	70	CHEV	CHEL	8	350	2	1	1	20	525	1	29	13		3500	12 3	1	73	61	29 20
108	1153	4-11-74	70	CHEV	IMPA	8	350	4	1	1	25	500	1	32	4		4000	13 2	1	75	61	29 05
109	1171	4-18-74	70	CHEV	IMPA	8	400	2	1	1	25	500	1	29	10		4000	13 2	1	74	65	29 40
110	1318	6-11-74	70	DODG	CHAR	8	383	2	1	1	19	700	1	28	13		3500	12 3	1	75	67	29 30
111	1368	7-12-74	70	FORD	MAVE	6	200	1	3	2	16	800	1	46	6		2750	9 9	2	79	69	29 45
112	1137	4- 8-74	70	FORD	MUST	8	302	2	1	1	22	575	1	31	15		3000	10 3	2	72	60	29 30
113	1275	5-23-74	70	FORD	LTD	8	351	2	1	1	25	525	1	31	4		4000	12 0	2	80	65	29 25
114	1369	7-12-74	70	FORD	TORI	8	351	4	1	1	22	475	1	27	-5		3500	12 3	1	84	75	29 45
115	1164	4-16-74	70	FORD	LTD	8	390	2	1	1	20	575	1	32	5		4500	14 0	1	75	62	29 40
116	1450	9- 9-74	70	MERC	MARQ	8	429	2	1	1	25	750	1	31	3		4500	14 0	1	78	70	29 45
117	1322	6-12-74	70	OLDS	CUTL	8	350	2	1	1	20	475	1	33	-2		4000	13 2	1	77	72	29 40
118	1325	6-13-74	70	OLDS	NINE	8	455	4	1	1	25	575	1	29	7		4500	14 0	1	77	66	29 30
119	1161	4-15-74	70	PLYM	FRY3	8	318	2	1	1	19	525	1	26	2		4000	13 2	1	74	63	29 30
120	1225	5- 8-74	70	PLYM	DUST	8	318	2	1	2	18	650	1	27	-3		3000	10 3	2	80	68	28 95
121	1103	3-20-74	70	PONT	LEMA	8	350	2	1	1	20	600	1	31	1		4000	13 2	1	74	57	29 25
122	1373	7-15-74	70	PONT	CATA	8	400	2	1	1	25	610	1	16	13		4500	14 0	1	82	72	29 30
123	1419	8-21-74	70	TOYO	CORO	4	71	1	4	2	12	675	1	48	5		2000	8 3	2	74	62	29 50
124	1192	4-25-74	70	VOLK	BEET	4	97	1	4	2	11	800	1	60	-3		2000	8 3	2	76	61	29 55
125	1248	5-15-74	69	AMER	JAVE	8	290	2	1	2	19	500	1	32	-5		3500	12 3	1	77	66	29 20
126	1407	8- 9-74	69	BUIC	SKYL	8	350	2	1	1	20	550	1	30	4		4000	13 2	1	77	67	29 35
127	1415	8-16-74	69	CHEV	NOVA	6	250	1	1	2	18	550	1	30	3		3000	10 3	2	80	72	29 40
128	1269	5-22-74	69	CHEV	PICK	8	307	2	1	2	18	450	1	29	7		4000	12 0	2	78	68	29 20
129	1133	4- 4-74	69	CHEV	CAMA	8	327	2	1	2	18	500	1	31	8		3500	11 2	2	75	61	29 05
130	1196	4-26-74	69	CHEV	TOWN	8	350	4	1	1	24	425	1	34	4		4500	12 7	2	78	63	29 40
131	1155	4-11-74	69	CHEV	TOWN	8	350	4	1	1	24	600	1	23	4		4500	14 0	1	74	63	28 90
132	1215	5- 2-74	69	CHEV	IMPA	8	327	2	1	1	24	500	1	31	-4		4000	13 2	1	71	64	29 00
133	1182	4-22-74	69	CHRY	NEWP	8	383	2	1	1	24	475	1	99	3		4000	13 2	1	75	58	29 15
134	1205	4-30-74	69	DODG	DART	6	225	1	1	2	18	475	1	33	10		3000	10 3	2	77	69	29 40
135	1289	5-31-74	69	FORD	FAIR	8	302	2	1	1	20	675	1	25	3		3500	11 2	2	78	70	29 10
136	1203	4-29-74	69	FORD	FAIR	8	302	2	1	1	20	500	1	25	0		3500	11 2	2	73	63	29 37
137	1107	3-22-74	69	FORD	STAW	8	351	2	1	1	20	600	1	33	0		4500	12 7	2	72	55	29 30
138	1375	7-16-74	69	FORD	MUST	8	351	2	1	2	20	525	1	31	-5		3500	12 3	1	81	68	29 40
139	1106	3-22-74	69	FORD	GALA	8	390	2	1	1	25	650	1	32	7		4000	13 2	1	73	61	29 30
140	1131	4- 4-74	69	MERC	COLO	8	390	2	1	1	20	625	1	27	8		4500	14 0	1	78	66	28 98
141	1151	4-11-74	69	OLDS	TORO	8	455	4	1	1	24	550	1	34	-10		4500	14 0	1	74	60	29 15
142	1108	3-22-74	69	PLYM	FRY3	8	318	2	1	1	24	600	1	30	0		4000	12 0	2	74	65	29 20
143	1310	6- 7-74	69	PONT	LEMA	8	350	2	1	1	22	550	1	29	7		3500	12 3	1	77	67	28 95
144	1209	5- 1-74	69	PONT	EXEC	8	400	2	1	1	27	700	1	31	7		4500	14 0	1	76	64	29 50
145	1381	7-19-74	69	VOLK	BEET	4	91	1	4	2	11	825	1	50	10		2000	8 3	2	78	70	29 45
146	1388	7-23-74	68	AMER	AMER	6	232	1	3	2	16	575	1	31	2		3000	10 3	2	76	64	29 32
147	1383	7-19-74	68	BUIC	ELEC	8	430	4	1	1	25	550	1	31	-10		4500	14 0	1	83	72	29 50
148	1156	4-12-74	68	CADI	DEVI	8	472	4	1	1	24	675	1	32	5		5000	14 7	1	74	65	28 85
149	1427	8-27-74	68	CHEV	NOVA	6	230	1	1	2	16	500	1	35	0		3000	10 3	2	71	67	29 40
150	1112	3-26-74	68	CHEV	BELA	8	307	2	1	1	24	525	1	30	5		4000	12 0	2	73	60	29 55

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

ST LOUIS

VEH	RUN	DATE	YR	MAKE	MODL	C	CID	V	T	A	FT	IRPM	F	DW	IGN	TESTS	INRT	RLHP		L	DB	WB	BAROM	
151	1253	5-16-74	68	CHEV	IMPA	8	327	4	1	1	24	325	1	28	9		4000	12	0	2	80	72	29	10
152	1211	5- 1-74	68	CHEV	BELA	8	307	2	1	2	24	525	1	30	8		4000	12	0	2	78	64	29	50
153	1431	8-28-74	68	CHEV	IMPA	8	327	4	4	2	24	550	1	28	6		4000	13	2	1	71	66	29	26
154	1113	3-26-74	68	DODG	CHAR	8	383	4	1	2	19	725	1	35	17		3500	12	3	1	74	61	29	55
155	1282	5-29-74	68	FORD	MUST	6	200	1	1	2	16	600	1	36	33		3000	10	3	2	72	65	29	10
156	1219	5- 6-74	68	FORD	MUST	8	289	2	1	2	16	450	1	24	10		3000	10	3	2	75	60	29	30
157	1101	3-19-74	68	FORD	TORI	8	302	2	1	1	20	500	1	27	-6		3500	11	2	2	69	57	29	22
158	1188	4-24-74	68	FORD	GALA	8	390	2	1	1	25	600	1	27	8		4000	13	2	1	73	65	29	65
159	1126	4- 3-74	68	MERC	COUG	8	302	2	1	2	16	550	1	31	17		3500	12	3	1	72	66	28	60
160	1149	4-10-74	68	OLDS	DELM	8	350	2	1	1	20	550	1	26	10		4000	13	2	1	75	57	29	25
161	1145	4-10-74	68	PLYM	FURY	8	318	2	1	1	19	550	1	37	0		4500	12	7	2	72	58	29	40
162	1123	4- 2-74	68	PONT	CATA	8	400	2	1	1	27	525	1	31	7		4500	14	0	1	77	67	29	00
163	1200	4-29-74	68	VOLK	BEET	4	91	1	4	2	11	1000	1	50	0		2250	8	8	2	75	50	29	40
164	1430	8-27-74	67	AMER	AMBA	6	232	1	1	2	22	850	1	38	20		3500	11	2	2	80	69	29	90
165	1410	8-14-74	67	BUIC	LESA	8	340	2	1	1	25	625	1	31	0		4000	12	0	2	77	67	29	44
166	1391	7-24-74	67	CADI	FLEE	8	429	4	1	1	20	525	1	27	14		5000	14	7	1	81	69	29	40
167	1109	3-25-74	67	CHEV	CAMA	6	250	1	1	2	18	600	1	26	6		3000	10	3	2	73	60	29	62
168	1110	3-25-74	67	CHEV	CAPR	8	283	2	1	1	24	500	1	28	2		4000	12	0	2	74	60	29	60
169	1119	3-29-74	67	CHEV	IMPA	8	283	2	1	2	24	475	1	31	6		4000	12	0	2	75	66	28	75
170	1374	7-16-74	67	CHEV	IMPA	8	327	4	1	1	24	675	1	33	20		4000	13	2	1	76	66	29	40
171	1114	3-27-74	67	CHRY	NEWP	8	383	2	1	1	25	650	1	99	15		4000	13	2	1	72	64	29	42
172	1163	4-16-74	67	DODG	CORO	8	318	2	1	1	19	475	1	32	7		3500	11	2	2	72	65	29	40
173	1173	4-18-74	67	FORD	CUST	8	289	2	1	2	25	525	1	31	8		4000	12	0	2	73	63	29	40
174	1127	4- 3-74	67	FORD	STAW	8	289	2	1	1	20	550	1	28	13		4000	12	0	2	76	67	28	54
175	1116	3-28-74	67	FORD	LTD	8	390	2	1	1	25	675	1	28	14		4000	13	2	1	76	66	29	10
176	1380	7-18-74	67	MERC	MONC	8	390	2	1	1	25	675	1	44	6		4000	13	2	1	84	72	29	45
177	1122	4- 1-74	67	OLDS	DELT	8	425	4	1	1	25	625	1	30	8		4500	14	0	1	78	66	28	75
178	1382	7-19-74	67	PLYM	VALI	6	225	1	1	2	18	550	1	99	6		3000	10	3	2	79	67	29	50
179	1118	3-29-74	67	PONT	FIRE	8	326	2	1	1	19	425	1	31	6		3500	11	2	2	76	66	28	80
180	1121	4- 1-74	67	VOLK	BEET	4	91	1	4	2	11	725	1	99	8		2000	8	3	2	70	62	28	70

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

Column Heading	Description
VEH:	Vehicle Number
YR:	Model Year
MAKE:	Vehicle Make
MODL:	Vehicle Model
VIN:	Vehicle Identification Number
ODOM:	Odometer Reading
PRDATE:	Purchase Date of Vehicle (Month, Day, Year)
N:	New or Used? (1: New; 2: Used)
VMT1:	Vehicle Miles Traveled During the Past Year
VMT2:	Vehicle Miles Traveled During the Year Before Last
%C:	Percent City Driving
%S:	Percent Suburban Driving
%F	Percent Freeway Driving
LOC:	Date of Last Oil Change (Month, Year or 9999: Don't Know)
%W:	Percent Driving to and from Work
%G:	Percent Shopping
%T:	Percent Transporting Family Members
%V:	Percent Vacation Driving
%B:	Percent Business Driving (Not to and from work)
LTU:	Last Tune-Up (Month, Year)
W:	Who Performed Tune-Up? (1: franchised dealer; 2: independent garage; 3: service station; 4: owner or friend; 9: don't know)

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

LOS ANGELES

VEH	YR	MAKE	MODL	VIN	ODOM	PRDATE	N	VMT1	VMT2	%C	%S	%F	LOC	%W	%G	%T	%V	%Z	LTU	W
1	74	BUIC	ELEC	4X37W4H412987	13516	10-73	1	13000	0	35	35	30	7-74	65	5	10	20	0	99-99	9
2	74	CHEV	MONT	1H57L4Z443161	7431	6-74	1	7000	0	50	0	50	7-74	50	0	0	0	50	99-99	9
3	74	CHEV	IMPA	1L47L4C117632	18718	10-73	1	10000	0	60	0	40	6-74	80	0	0	20	0	6-74	1
4	74	DODG	MAXI	B38BF4X010635	8452	11-73	1	0	0	70	0	30	6-74	20	20	30	20	10	2-74	1
5	74	FORD	MAVE	4K92F101542	9167	2-74	1	9000	0	20	0	80	8-74	30	20	50	0	0	8-74	1
6	74	FORD	TORI	4A31H137771	12610	1-74	1	0	0	50	50	0	6-74	0	0	0	0	99	6-74	1
7	74	OLDS	CUTL	3J57K4R453485	11332	11-73	1	0	0	50	0	50	3-74	0	20	0	0	80	99-99	9
8	74	PLYM	DUST	VL29G4G111994	6211	7-74	2	1000	0	50	0	50	7-74	99	0	0	0	1	99-99	9
9	74	PONT	CATA	2L57R4C102416	22173	9-73	1	20000	0	10	10	80	99-99	90	0	0	0	10	99-99	9
10	74	VOLK	BEET	1142449151	3720	4-74	1	3000	0	50	0	50	6-74	50	50	0	0	0	99-99	1
11	73	AMER	MATA	A3A187A154474	26855	12-72	1	10000	10000	15	10	75	3-74	85	5	0	10	0	3-74	1
11	73	AMER	MATA	A3A187A154474	26866	12-72	1	10000	10000	15	10	75	3-74	85	5	0	10	0	3-74	1
12	73	BUIC	LESA	4N39J3C103724	27515	10-72	1	17000	10000	50	0	50	3-74	70	15	0	15	0	3-74	1
12	73	BUIC	LESA	4N39J3C103724	27532	10-72	1	17000	10000	50	0	50	3-74	70	15	0	15	0	3-74	1
13	73	BUIC	RIVI	4Y87U3H421096	15190	3-74	2	3000	12000	80	0	20	5-74	0	50	0	50	0	5-74	1
13	73	BUIC	RIVI	4Y87U3H421096	15203	3-74	2	3000	12000	80	0	20	5-74	0	50	0	50	0	5-74	1
14	73	CADI	COUP	6D47R30298011	17878	7-73	1	8000	0	50	50	0	5-74	0	50	50	0	0	7-74	2
14	73	CADI	COUP	6D47R30298011	17892	7-73	1	8000	0	50	50	0	5-74	0	50	50	0	0	7-74	2
15	73	CAPR	CAPR	GAECNU38009	11620	7-73	1	6000	99999	75	0	25	4-74	60	15	0	15	10	4-74	1
16	73	CHEV	VEGA	1V77B3U119746	21155	4-73	1	18000	0	25	0	75	7-74	75	10	10	5	0	7-74	2
16	73	CHEV	VEGA	1V77B3U119746	21166	4-73	1	18000	0	25	0	75	7-74	75	10	10	5	0	7-74	2
17	73	CHEV	1/2	CC0143Z102449	13294	4-73	2	8000	0	75	0	25	3-74	0	25	0	50	25	4-74	4
17	73	CHEV	1/2	CC0143Z102449	13297	4-73	2	8000	0	75	0	25	3-74	0	25	0	50	25	4-74	4
18	73	CHEV	NOVA	1X27F3L234334	14322	6-73	1	7000	7000	50	0	50	99-99	90	0	10	0	0	99-99	9
19	73	CHEV	1/2	CCX143Z153921	14598	5-73	1	12000	0	75	0	25	5-74	90	5	0	5	0	5-74	1
20	73	CHEV	CUST	CC4243Z154341	21784	5-73	1	15000	99999	50	0	50	5-74	1	33	33	33	0	5-74	4
21	73	CHEV	IMPA	1L69F3C113319	50303	9-72	1	25000	25000	30	20	50	7-74	25	0	10	10	55	1-74	2
21	73	CHEV	IMPA	1L69F3C113319	50319	9-72	1	25000	25000	30	20	50	7-74	25	0	10	10	55	1-74	2
22	73	CHEV	MONT	1H57K3Z463587	15046	6-73	1	8000	0	75	0	25	3-74	50	10	10	30	0	99-99	9
23	73	CHEV	IMPA	1L35R3C177581	30338	12-72	1	30000	99999	50	0	50	8-74	15	15	0	0	70	8-74	1
23	73	CHEV	IMPA	1L35R3C177581	30352	12-72	1	30000	99999	50	0	50	8-74	15	15	0	0	70	8-74	1
24	73	CHRY	IMPE	YM43T3C134020	36776	2-74	2	7000	99999	50	0	50	6-74	95	2	3	0	0	2-74	1
24	73	CHRY	IMPE	YM43T3C134020	36798	2-74	2	7000	99999	50	0	50	6-74	95	2	3	0	0	2-74	1
25	73	DATS	1200	LB110987522	17689	2-73	1	10000	0	50	0	50	6-74	80	10	0	10	0	6-74	1
26	73	DODG	SWIN	LH23C3B112718	24307	2-73	1	10000	0	30	70	0	2-74	80	20	0	0	0	99-99	9
26	73	DODG	SWIN	LH23C3B112718	24318	2-73	1	10000	0	30	70	0	2-74	80	20	0	0	0	99-99	9
27	73	DODG	VAN	B11AE3X123228	15076	7-73	1	7000	7000	50	0	50	7-74	99	0	0	0	0	7-74	4
28	73	FORD	PINT	3R11X208432	11737	7-73	1	8000	0	75	0	25	3-74	70	10	10	10	0	99-99	9
28	73	FORD	PINT	3R11X208432	11750	7-73	1	8000	0	75	0	25	3-74	70	10	10	10	0	99-99	9
29	73	FORD	SUPE	E24AH526182	19369	8-73	1	20000	99999	99	40	40	6-74	20	40	10	10	30	99-99	9
30	73	FORD	MAVE	3K93F181897	20748	12-72	1	15000	99999	25	0	75	8-74	80	10	10	0	0	8-74	4
31	73	FORD	TORI	3A350201217	12954	12-74	1	35000	9000	75	0	25	4-74	50	25	25	0	0	7-74	2
31	73	FORD	TORI	3A350201217	12971	12-74	1	35000	9000	75	0	75	4-74	50	25	25	0	0	7-74	2
32	73	FORD	GALA	3J58H145505	29947	3-74	2	0	0	90	0	10	99-99	50	0	10	0	40	2-74	9
32	73	FORD	GALA	3J58H145505	29958	3-74	2	0	0	90	0	10	99-99	50	0	10	0	40	2-74	9
33	73	FORD	STAW	3A47S182967	23138	4-73	1	99999	0	20	30	50	4-74	50	5	20	25	0	99-99	9
33	73	FORD	STAW	3A47S182967	23150	4-73	1	99999	0	20	30	50	4-74	50	5	20	25	0	99-99	9
34	73	FORD	GALA	3J58S140412	50193	12-72	1	30000	0	25	0	75	6-74	5	0	5	0	90	9-73	4
34	73	FORD	GALA	3J58S140412	50204	12-72	1	30000	0	25	0	75	6-74	5	0	5	0	90	9-73	4
35	73	MAZD	RX-2	S122A177327	18701	6-73	2	9000	9000	50	0	50	7-74	90	0	0	10	0	7-74	1

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

LOS ANGELES

VEH	YR	MAKE	MODL	VIN	ODOM	PRDATE	N	VMT1	VMT2	%C	%S	%F	LOC	%W	%G	%T	%V	%B	LTU	W
36	73	MERC	MONG	3H08H627839	6003	7-73	1	5000	99999	85	0	15	5-74	5	5	85	5	0	7-74	4
36	73	MERC	MONG	3H08H627839	6015	7-73	1	5000	99999	85	0	15	5-74	5	5	85	5	0	7-74	4
37	73	OLDS	CUTL	3J57K3R143801	21939	12-72	1	23000	99999	30	70	0	4-74	90	10	0	0	0	4-74	2
37	73	OLDS	CUTL	3J57K3R143801	21951	12-72	1	23000	99999	30	70	0	4-74	90	10	0	0	0	4-74	2
38	73	OLDS	98	3X39T3M380823	19252	5-73	1	9000	0	90	0	10	7-74	50	50	0	0	0	99-99	9
39	73	PLYM	DUST	VL29G3B452782	19714	5-73	1	12000	0	50	0	50	4-74	50	20	0	30	0	4-74	3
39	73	PLYM	DUST	VL29G3B452782	19722	5-73	1	12000	0	50	0	50	4-74	50	20	0	30	0	4-74	3
40	73	PLYM	FURY	PP43K3D162261	18330	10-73	1	9000	8000	40	0	60	5-74	0	0	0	99	0	4-74	3
41	73	PONT	VENT	2Y27M3L117157	20783	12-72	1	10000	10000	50	50	0	7-74	50	25	0	0	25	7-74	1
42	73	PONT	FIRE	2T87R3N111972	17453	2-73	1	10000	7000	30	0	70	2-74	50	0	0	50	0	2-74	3
43	73	TOYO	CELI	RA210086948	17863	5-73	1	16000	0	65	0	35	5-74	20	10	10	60	0	1-74	2
43	73	TOYO	CELI	RA210086948	17875	5-73	1	16000	0	65	0	35	5-74	20	10	10	60	0	1-74	2
44	73	VOLK	BEET	1132642558	25570	4-73	1	10000	15000	50	50	0	7-74	20	0	0	0	80	7-74	2
44	73	VOLK	BEET	1132642558	25588	4-73	1	10000	15000	50	50	0	7-74	20	0	0	0	80	7-74	2
45	73	VOLK	BUS	2232018158	25834	1-73	1	20000	0	10	0	90	6-74	90	5	3	2	0	6-74	1
46	72	BUIC	SPOR	4F36J2Z125977	28347	6-72	1	16000	11000	50	0	50	4-74	10	30	30	30	0	4-74	1
47	72	BUIC	LIMI	4V39T2H484831	25594	5-72	1	8000	15000	80	20	0	3-74	0	40	0	60	0	3-74	1
48	72	CHEV	VEGA	1V77B2L155628	24301	10-71	1	12000	10000	90	0	10	99-99	80	10	10	0	0	99-99	9
49	72	CHEV	NOVA	1X69D2L152284	26841	8-72	1	15000	15000	40	0	60	2-74	10	5	75	10	0	2-74	3
50	72	CHEV	MALI	1D37F2K506166	35885	1-71	1	15000	15000	10	0	90	12-73	90	0	10	0	0	12-73	[illegible]
51	72	CHEV	NOVA	1X69H2L160192	19684	8-72	1	9000	5000	70	0	30	5-74	30	30	30	10	0	5-74	2
52	72	CHEV	MALI	1D37H2L525877	27895	99-99	1	99999	99999	99	99	99	99-99	99	99	99	99	99	99-99	9
53	72	CHEV	SPOR	CGE362V156166	36215	6-72	1	20000	10000	90	0	10	11-73	70	0	30	0	0	11-73	4
54	72	CHEV	CAPR	1N39R2C141524	31753	12-71	1	15000	15000	75	0	25	4-74	50	10	20	10	10	4-74	4
55	72	DATS	PICK	PL521760176	35849	1-72	1	15000	15000	50	0	50	3-74	80	5	10	5	0	11-73	4
56	72	DODG	TRAD	B11AE2U576391	30503	5-72	1	10000	10000	20	30	0	99-99	50	20	0	30	0	99-99	4
57	72	DODG	SWIN	LH23G2B222300	28530	11-72	1	12000	12000	50	50	0	9-74	60	20	20	0	0	8-73	1
58	72	FORD	PINT	2R11X106957	72745	10-72	1	10000	0	90	10	0	6-74	25	50	15	10	0	4-74	4
59	72	FORD	MAVE	2K93F113295	38795	12-71	1	15000	15000	50	0	50	3-74	70	10	10	10	0	3-74	4
60	72	FORD	TORI	2A35H258257	36275	1-73	2	18000	0	90	0	10	6-74	95	0	0	0	5	6-74	2
61	72	FORD	TORI	2A27H351772	18598	6-73	2	5000	0	70	30	0	4-74	40	40	20	0	0	11-73	2
62	72	FORD	LTD	2J62S160379	34397	2-72	1	99999	99999	50	0	50	99-99	80	10	10	0	0	99-99	1
63	72	FORD	STAW	2J76N151822	49423	9-72	2	13000	12000	50	0	50	6-74	0	0	40	60	0	6-74	3
64	72	LINC	CONT	2Y89A835980	37628	8-73	2	10000	10000	90	0	10	12-73	70	20	10	0	0	12-73	2
65	72	MERC	STA	2Z72S518721	27310	2-73	2	15000	0	80	10	10	5-74	10	30	50	10	0	5-74	2
66	72	OLDS	CUTL	3J57K2Z106000	37715	9-72	1	12000	8000	80	0	20	4-74	0	20	0	0	80	1-74	2
67	72	OLDS	DELT	3N57TZM554492	31235	6-72	1	15000	7000	99	0	1	7-74	0	10	0	90	0	6-74	2
68	72	OPEL	GT	772816633	23860	11-72	2	9000	9000	50	50	0	99-99	50	50	0	0	0	7-74	2
69	72	PLYM	DUST	VL29C2B320573	49069	1-73	2	1000	0	50	0	50	4-74	0	0	50	50	0	4-74	1
70	72	PLYM	SATE	RP46G2G191889	16681	9-71	1	99999	99999	75	0	25	99-99	50	0	50	0	0	99-99	9
71	72	PONT	VENT	2Y27M2L107722	37365	6-72	1	26000	11000	75	0	25	2-74	10	10	20	10	50	12-73	2
72	72	PONT	GRAN	2P47W2C315308	26522	3-73	2	14000	0	50	0	50	99-99	25	20	30	25	0	99-99	4
73	72	TOYO	CORO	TE28524214	29449	99-72	1	15000	14000	30	0	70	5-74	30	30	40	0	0	5-74	1
74	72	VOLK	BEET	1122820060	28917	7-72	1	18000	11000	1	0	99	4-74	99	0	1	0	0	3-74	1
75	72	VOLK	BEET	1122789438	39553	7-72	1	20000	17000	50	0	50	7-74	40	5	0	15	40	12-73	1
76	71	AMER	HORN	A1A087A126504	56783	12-72	2	10000	20000	75	25	0	7-74	90	0	10	0	0	8-72	2
77	71	BUIC	SKYL	433271Z600828	50654	12-71	2	15000	99999	90	0	10	99-99	20	0	0	80	0	12-73	4
78	71	BUIC	ELEC	484391H480441	33478	1-72	1	10000	15000	50	25	25	1-74	99	0	0	0	0	1-74	4
79	71	CADI	DEVI	6834910190869	46135	1-73	2	20000	99999	25	25	50	4-74	0	50	0	50	0	9-73	1
80	71	CHEV	VEGA	141111U245726	40567	12-71	1	20000	18000	40	0	60	3-74	30	15	15	0	40	99-99	9

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

LOS ANGELES

VEH	YR	MAKE	MODL	VIN	ODOM	PRDATE	N	VMI1	VMI2	%C	%S	%F	LOC	%W	%G	%T	%V	%B	LTU	W
81	71	CHEV	CAMA	124871L502044	39925	12-73	2	15000	15000	85	0	15	4-74	85	0	0	15	0	4-74	4
82	71	CHEV	IMPA	164391C178344	37144	9-71	1	99999	99999	95	0	5	99-99	25	25	25	25	0	99-99	9
83	71	CHEV	NOVA	114691W116728	64343	12-70	1	24000	24000	50	0	50	2-74	0	50	50	0	0	2-74	4
84	71	CHEV	IMPA	164471C105099	56653	1-71	1	25000	25000	50	0	50	3-74	30	10	10	50	0	3-74	4
85	71	CHEV	KING	166451C133221	42134	1-71	1	15000	15000	90	0	10	11-73	50	50	0	0	0	11-73	4
86	71	CHRY	NEWP	CE41K1C219790	60642	9-70	1	15000	10000	20	0	80	8-74	70	30	0	0	0	6-74	1
87	71	DATS	1200	LB110206720	15526	6-72	2	25000	8000	60	0	40	6-74	15	20	65	0	0	3-74	2
88	71	DODG	DART	LH23G1R263710	40441	8-72	2	17000	4000	75	0	25	12-73	60	15	20	5	0	1-73	2
89	71	FORD	PINT	1R10X127782	56513	11-70	1	12000	12000	50	20	30	4-74	20	15	5	30	30	5-73	1
90	71	FORD	MAVE	1K93T100300	38511	12-72	2	17000	0	90	0	10	11-73	75	5	0	20	0	3-74	2
91	71	FORD	MUST	1F02F118192	55460	10-72	2	30000	99999	0	20	80	5-74	80	10	10	0	0	1-74	2
92	71	FORD	MUST	1F02M141461	25353	12-72	2	99999	99999	75	25	0	8-73	75	15	10	0	0	8-73	4
93	71	FORD	LTD	1J62K125925	31387	12-72	2	10000	1000	85	15	0	1-74	50	10	10	0	0	3-73	4
94	71	MERC	MARQ	1Z64K548677	42195	11-70	1	12000	10000	70	30	0	3-74	0	50	50	0	0	99-99	1
95	71	OLDS	98	384391M457087	56520	9-72	1	15000	8000	50	50	0	6-74	0	0	20	0	80	6-74	2
96	71	OLDS	NINE	386371M492168	48592	11-71	1	15000	20000	80	10	10	12-73	0	50	30	20	0	12-73	2
97	71	PLYM	VALI	VL41C1E159893	34629	8-71	1	10000	10000	80	0	20	8-74	90	5	0	5	0	4-74	2
98	71	PLYM	DUST	VL29G1E135814	48353	4-71	1	12000	13000	60	0	40	1-74	75	0	0	25	0	1-74	4
99	71	PONT	FIRE	224871L113615	45098	10-71	1	18000	18000	5	15	80	4-74	80	5	0	0	15	2-74	1
100	71	PONT	CATA	252691C309397	91666	7-74	2	10000	10000	50	50	0	5-74	50	25	25	0	0	3-74	1
101	71	TOYO	CORO	KE250165583	47622	9-72	1	16000	16000	70	0	30	6-74	60	20	0	20	0	6-74	4
102	71	VOLK	SUPE	1112759810	43890	10-72	2	25000	10000	20	0	80	4-74	80	20	0	0	0	2-74	1
103	70	BUIC	ESTA	460460C117687	51947	6-70	1	10000	10000	90	0	10	99-99	0	60	30	10	0	99-99	9
104	70	CHEV	CAMA	123870L528759	52296	10-70	1	13000	15000	40	0	60	5-74	90	10	0	0	0	2-74	4
105	70	CHEV	CHEL	136370L169627	36307	4-71	2	10000	10000	90	10	0	99-99	40	40	20	0	0	99-99	4
106	70	CHEV	IMPA	164390C160421	46976	7-72	2	12000	6000	80	0	20	99-99	25	25	25	25	0	7-73	2
107	70	CHEV	EL C	136800L128237	56237	6-72	2	12000	12000	70	0	30	7-74	70	10	10	10	0	5-74	4
108	70	CHEV	EL C	136800L149518	79674	12-69	1	35000	35000	40	0	60	99-99	5	0	0	5	90	1-74	2
109	70	CHEV	MONT	138570L111478	46881	12-69	2	15000	15000	50	50	0	6-73	90	10	0	0	0	6-73	2
110	70	DODG	CHAR	XP29L0G137364	42199	10-69	2	10000	10000	70	30	0	4-73	80	10	10	0	0	4-73	2
111	70	FORD	MAVE	0K91T306899	37101	4-70	1	8000	15000	90	10	0	12-73	0	50	50	0	0	12-73	1
112	70	FORD	TORI	0R43F114134	83464	11-69	1	20000	20000	80	0	20	2-74	80	0	0	20	0	2-74	4
113	70	FORD	GALA	0J56H173642	41835	2-71	2	8000	8000	95	0	5	12-73	0	20	60	20	0	12-73	2
114	70	FORD	TORI	0R34M135832	46699	10-70	1	11000	16000	80	0	20	2-74	70	0	20	10	0	10-73	2
115	70	FORD	STAW	0J74Y174398	41995	5-71	2	10000	10000	80	20	0	1-74	70	30	0	0	0	1-74	1
116	70	MERC	MARQ	0Z64N625462	32738	2-70	2	5000	5000	50	50	0	3-74	50	50	0	0	0	4-74	4
117	70	OLDS	CUTL	342390Z108650	56079	12-69	1	10000	10000	75	0	25	99-99	0	25	50	25	0	99-99	9
118	70	OLDS	442	344870Z120788	52504	2-70	1	14000	12000	50	50	0	7-74	10	40	0	50	0	3-74	2
119	70	PLYM	SATE	RH46G0G188843	37117	2-70	1	6000	6000	80	20	0	4-74	80	20	0	0	0	99-99	9
120	70	PLYM	BARR	BH23G0E102622	45285	4-71	2	10000	12000	25	0	75	2-74	20	10	10	60	0	2-74	2
121	70	PONT	LEMA	235370Z129980	61816	4-70	1	10000	15000	25	0	75	4-74	40	20	20	10	10	4-74	1
122	70	PONT	GTO	242370Z122732	61529	1-70	1	5000	20000	70	5	25	99-99	5	85	0	5	5	99-99	4
123	70	TOYO	MARK	RT62L56025	49345	8-69	1	10000	10000	40	0	60	9-73	70	30	0	0	0	1-74	2
124	70	VOLK	BEET	1103072121	61929	1-72	2	20000	20000	20	0	80	4-74	80	20	0	0	0	11-73	4
125	69	AMER	AMBA	A9A855T102625	73218	11-68	1	13000	11000	50	50	0	6-74	0	50	0	25	25	3-74	4
126	69	BUIC	SKYL	444379H126424	54015	11-70	2	10000	10000	50	0	50	5-74	90	5	5	0	0	5-74	2
127	69	CHEV	NOMA	132369Z342823	69880	2-69	1	18000	15000	30	70	0	6-74	0	0	0	0	99	6-74	2
128	69	CHEV	CAMA	124379L522862	50959	2-69	1	10000	10000	90	0	10	2-74	0	99	0	0	0	99-99	9
129	69	CHEV	IMPA	164699L034841	121632	8-71	2	10000	10000	80	20	0	1-74	80	20	0	0	0	1-74	2
130	69	CHEV	MALI	136379B321569	54180	8-69	1	10000	10000	99	0	0	3-74	50	30	20	0	0	5-73	4

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

LOS ANGELES

VEH	YR	MAKE	MODL	VIN	ODOM	PRDATE	N	VMT1	VMT2	%C	%S	%F	LOC	%W	%G	%T	%V	%B	LTU	W
131	69	CHEV	IMPA	164479L005567	72828	10-68	2	12000	15000	99	0	0	2-74	99	0	0	0	9	2-74	2
132	69	CHEV	IMPA	164479C026147	53200	99-99	1	12000	99999	70	0	30	8-74	50	5	5	40	0	1-74	2
133	69	CHRY	TOWN	CP45G9C189754	57515	2-69	1	99999	99999	50	0	50	4-74	40	20	20	20	0	99-99	2
134	69	DODG	DART	LL23B9E129180	125596	3-69	1	45000	45000	5	0	95	2-74	99	0	0	0	0	2-74	3
135	69	FORD	STAW	9K47F127498	50968	3-69	1	8000	8000	80	20	0	3-74	70	0	0	30	0	3-74	2
136	69	FORD	FAIR	9K30F170104	34713	11-72	2	2000	2000	85	0	15	1-74	0	50	50	0	0	12-73	4
137	69	FORD	MUST	9R02H176034	43617	1-69	1	8000	12000	75	0	25	3-74	25	15	25	0	35	1-74	2
138	69	FORD	MUST	9R02H123378	107252	11-68	1	20000	15000	90	10	0	1-74	90	0	10	0	0	1-74	2
139	69	FORD	STAW	9J75Y170763	64023	4-69	1	10000	10000	99	0	0	3-74	99	0	0	0	0	1-74	2
140	69	MERC	MONG	9H06H541286	32845	11-68	1	8000	9000	50	50	0	3-74	50	25	25	0	0	6-74	4
141	69	OLDS	DELT	364399X135887	42384	5-73	2	10000	0	70	0	30	99-99	60	10	30	0	0	99-99	9
142	69	PLYM	BARR	BH29F9B390041	58778	99-69	1	3000	3000	15	85	0	12-73	80	20	0	0	0	12-73	2
143	69	PONT	TEMP	235699B110198	52732	2-69	1	12000	12000	90	5	5	3-74	99	0	0	0	0	12-73	2
144	69	PONT	GRAN	276579P172643	71475	2-70	2	8000	8000	50	50	0	3-74	0	50	50	0	0	3-74	2
145	69	VOLK	BEET	119689462	72152	99-69	1	15000	10000	10	10	80	99-99	80	10	0	0	10	4-74	4
146	68	AMER	RAMB	A8A097B189399	61186	1-71	2	8000	11000	60	35	5	99-99	0	75	0	25	0	99-99	2
147	68	BUIC	ELEC	484578H255530	78028	12-71	2	99999	99999	70	10	20	99-99	80	10	10	0	0	99-99	9
148	68	CADI	COUP	J8280081	106851	4-72	2	25000	35000	30	0	70	4-74	80	10	10	0	0	8-73	1
149	68	CHEV	BISC	153118L117896	51789	6-68	1	10000	10000	80	20	0	3-74	70	30	0	0	0	3-74	2
150	68	CHEV	IMPA	164398L136527	86584	10-69	2	10000	17000	75	0	25	99-99	0	30	40	30	0	10-74	9
151	68	CHEV	NOVA	114278W285743	62151	5-69	2	3000	3000	80	0	20	99-99	0	50	50	0	0	99-99	9
152	68	CHEV	CHEL	136698Z138593	36216	6-72	2	15000	8000	70	0	30	1-74	70	10	10	10	0	10-73	2
153	68	CHEV	MALI	1363782127117	59675	8-72	2	8000	8000	90	10	0	7-74	90	10	0	0	0	5-74	4
154	68	DODG	CORO	WP45H8E165886	60615	99-68	1	8000	8000	80	20	0	3-74	0	50	50	0	0	3-74	4
155	68	FORD	MUST	8R01T152330	74272	2-74	2	0	0	50	50	0	99-99	90	10	0	0	0	99-99	9
156	68	FORD	MUST	8F01C186055	53478	5-73	2	13000	0	90	10	0	8-73	90	0	10	0	0	8-73	4
157	68	FORD	MUST	8R01J102190	42850	10-68	1	8000	8000	80	20	0	10-73	40	40	20	0	0	1-73	4
158	68	FORD	LTD	8J62Y107462	18003	12-67	1	3000	3000	75	0	25	99-99	0	30	40	30	0	99-99	9
159	68	MERC	COUG	8F93F503551	64198	99-68	1	10000	10000	70	30	0	2-74	0	90	10	0	0	2-74	9
160	68	OLDS	CUTL	336358Z102812	70547	12-67	1	12000	12000	50	50	0	4-74	0	50	50	0	0	4-74	4
161	68	PLYM	VALI	VH41K8E111813	80819	9-73	2	4000	0	80	10	10	6-74	0	50	50	0	0	6-74	2
162	68	PONT	CATA	252458E192289	75237	7-68	1	10000	10000	90	10	0	10-73	50	30	20	0	0	1-74	2
163	68	VOLK	BUG	118373964	60967	12-73	2	0	0	75	0	25	99-99	75	15	10	0	0	99-99	9
164	67	AMER	WAGO	A7KA85N156572	63673	8-67	1	6000	6000	75	5	20	0-73	0	40	30	25	5	99-73	3
165	67	BUIC	SKYL	444177Z109408	101838	11-67	1	20000	20000	10	0	90	11-73	99	0	0	0	0	11-73	4
166	67	CADI	COUP	J7228253	45768	3-67	1	5000	5000	90	0	10	7-74	80	10	0	0	10	99-73	1
167	67	CHEV	CHEL	135177Z111251	96853	9-67	2	99999	99999	10	10	80	2-74	99	0	0	0	0	2-74	2
168	67	CHEV	NOVA	116377W115778	70050	3-67	1	12000	13000	50	50	0	1-74	0	10	10	80	0	3-74	3
169	67	CHEV	CHEL	134117Z156029	30159	8-67	1	2000	2000	90	0	10	2-74	0	95	5	0	0	99-99	9
170	67	CHEV	MALI	136177K111206	87011	10-68	2	3000	3000	95	0	5	11-73	0	50	50	0	0	99-99	2
171	67	CHRY	NEWP	CE43G73111828	16820	8-67	1	15000	10000	80	20	0	2-74	90	10	0	0	0	2-74	2
172	67	DODG	VAN	2087012182	64050	8-67	1	15000	15000	90	0	10	2-74	0	30	60	10	0	1-74	4
173	67	FORD	MUST	7R01C189973	54197	6-67	1	4000	4000	90	0	10	3-74	90	0	0	10	0	3-74	1
174	67	FORD	FAIR	7K35C183771	70693	6-72	2	99999	99999	90	5	5	99-99	80	0	0	20	0	3-74	1
175	67	FORD	GALA	7J56H112564	33743	3-73	2	99999	0	80	10	10	99-99	80	10	5	0	5	99-99	9
176	67	MERC	COUG	7F915563647	69357	3-70	2	7000	7000	99	1	0	4-74	99	0	0	0	1	9-73	9
177	67	OLDS	TORO	394877M609615	76902	7-67	1	7000	9000	99	0	0	99-99	80	10	0	10	0	5-73	1
178	67	PLYM	BARR	BH23B72235777	65667	5-67	1	12000	12000	50	50	0	2-74	30	30	40	0	0	11-73	2
179	67	PONT	LEMA	237077Z102028	10502	6-74	2	0	0	90	0	10	99-99	80	20	0	0	0	99-99	9
180	67	VOLK	KARM	147453302	98870	3-73	2	20000	0	80	0	20	3-74	80	10	0	10	0	3-74	4

FH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	N	CNTI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	SW	[illegible]	[illegible]	[illegible]	[illegible]	LTO	W
1	74	BUIC	LIMI	[illegible]	[illegible]	[illegible]	1	0	[illegible]	[illegible]	12	12	[illegible]	[illegible]	[illegible]	12	12	0	99-99	1
2	73	CHEV	MONT	[illegible]	[illegible]	[illegible]	1	5000	0	[illegible]	75	25	[illegible]	[illegible]	75	0	25	0	99-99	1
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	1000	0	30	50	20	99-99	80	10	5	[illegible]	5	99-99	1
4	[illegible]	DODG	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	0	80	0	20	6-74	75	20	5	0	0	6-74	1
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0	[illegible]	[illegible]	[illegible]	99-99	[illegible]	[illegible]	[illegible]	90	[illegible]	99-99	1
6	74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	99	99	99	99-99	99	99	99	99	99	99-99	1
7	74	OLDS	CUTL	[illegible]	[illegible]	[illegible]	1	5000	0	80	[illegible]	20	99-99	80	10	0	10	0	99-99	1
8	74	PLYM	SATE	[illegible]	[illegible]	[illegible]	1	4000	0	70	10	20	7-74	10	10	70	10	0	99-99	1
9	74	PONT	CATA	[illegible]	[illegible]	[illegible]	1	0	0	20	60	20	4-74	40	10	30	20	0	4-74	1
10	74	VOLK	BEET	134,25[illegible]	[illegible]	[illegible]	1	5000	0	15	15	70	[illegible]	50	15	15	15	5	[illegible]	1
11	73	AMER	HORN	[illegible]	[illegible]	[illegible]	1	5000	0	70	15	15	1-74	0	40	30	30	0	1-74	1
12	73	BUIC	CNTY	[illegible]	[illegible]	[illegible]	1	0	0	75	5	20	5-74	40	20	10	10	20	99-99	1
13	73	BUIC	ESTA	[illegible]	15939	5-73	1	21000	10000	33	33	[illegible]	[illegible]	20	20	20	20	20	7-74	[illegible]
14	73	CADI	DE V	[illegible]	[illegible]	[illegible]	1	10000	99999	5	20	75	[illegible]	35	20	10	35	0	2-74	1
15	73	CAPR	CAPR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	99999	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3-74	1
16	73	CHEV	VEGA	[illegible]	[illegible]	[illegible]	1	13000	99999	0	40	60	[illegible]	[illegible]	20	0	0	0	7-74	1
17	73	CHEV	CHEV	[illegible]	[illegible]	4-73	1	[illegible]	0	80	20	0	5-74	0	50	50	0	0	5-74	1
18	73	CHEV	NOVA	[illegible]	[illegible]	[illegible]	1	[illegible]	0	75	10	15	4-74	[illegible]	50	15	[illegible]	0	4-74	4
19	73	CHEV	CHEV	[illegible]	[illegible]	[illegible]	1	11000	99999	33	33	34	5-73	50	10	10	10	20	5-73	[illegible]
20	73	CHEV	MONT	[illegible]	[illegible]	[illegible]	1	6000	0	[illegible]	0	0	12-73	75	25	0	0	0	12-73	1
21	73	CHEV	[illegible]	[illegible]	[illegible]	[illegible]	1	5000	0	80	10	10	11-73	5	75	20	0	0	11-73	[illegible]
22	73	CHEV	MONT	[illegible]	11314	[illegible]	1	11000	0	5	10	85	4-74	80	0	0	20	0	7-74	1
23	73	CHEV	CAPR	[illegible]	[illegible]	[illegible]	1	7000	0	[illegible]	5	15	7-74	0	15	80	5	0	2-74	1
24	73	CHEV	NEUP	[illegible]	[illegible]	[illegible]	1	14000	14000	50	50	0	5-74	30	30	30	10	0	5-74	4
25	73	DATS	1600	[illegible]	20538	1-73	1	[illegible]	99999	50	25	25	[illegible]	50	20	10	10	0	2-74	1
26	73	DODG	DART	[illegible]	[illegible]	[illegible]	1	10000	99999	10	80	10	4-74	70	10	10	10	0	7-74	1
27	73	DODG	DART	[illegible]	[illegible]	[illegible]	1	21000	[illegible]	5	90	5	5-74	25	10	10	55	0	3-73	3
28	73	FORD	PINT	[illegible]	[illegible]	[illegible]	1	[illegible]	0	30	10	10	3-74	60	15	0	25	0	1 74	1
29	73	FORD	MAVE	[illegible]	[illegible]	[illegible]	1	[illegible]	0	[illegible]	0	0	7-74	90	10	0	0	0	99-99	1
30	73	FORD	TORI	[illegible]	[illegible]	[illegible]	1	15000	0	90	5	5	5 74	50	45	[illegible]	[illegible]	0	99-99	[illegible]
31	73	FORD	GALA	[illegible]	[illegible]	6-73	1	[illegible]	20000	60	20	20	[illegible]	0	0	0	0	[illegible]	3-74	2
32	73	FORD	TORI	[illegible]	[illegible]	[illegible]	1	54000	0	40	10	50	7-74	50	10	5	5	30	4-74	1
33	73	FORD	LTD	[illegible]	[illegible]	11-73	1	11000	0	10	[illegible]	30	[illegible]	0	[illegible]	50	0	0	3-74	1
34	73	FORD	LTD	[illegible]	[illegible]	[illegible]	1	11000	0	75	[illegible]	[illegible]	5-74	[illegible]	[illegible]	15	15	0	2-74	1
35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	5	4-74	[illegible]	5	5	5	5	4-74	1
36	[illegible]	MERC	MARQ	[illegible]	[illegible]	[illegible]	[illegible]	5000	99999	5	80	15	7-74	[illegible]	[illegible]	0	[illegible]	[illegible]	7-74	[illegible]
37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	0	50	[illegible]	[illegible]	[illegible]	[illegible]	10	0	20	20	99-99	[illegible]
38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	99999	[illegible]	[illegible]	[illegible]	12-73	[illegible]	5	20	5	[illegible]	12-73	1
39	73	[illegible]	[illegible]	RE[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	50	25	25	5-74	70	10	20	0	0	99-99	1
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1000	[illegible]	[illegible]	[illegible]	[illegible]	5-74	0	34	33	33	0	5-74	1
41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40	40	20	5-74	75	10	5	10	0	5-74	2
42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	17000	14000	10	80	10	1-74	20	10	10	60	0	1-74	1
43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	11000	99999	50	40	10	4-74	30	10	30	15	15	1-74	1
44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	50	30	20	4-74	80	10	0	10	0	3-74	1
45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	99999	[illegible]	35	[illegible]	1-72	70	10	10	0	10	1-73	1
46	72	BUIC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13000	[illegible]	10	10	7-74	50	10	5	25	10	5-74	2
47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20	5-74	0	0	10	10	80	5-73	2
48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	17000	13000	50	25	25	7-74	70	20	0	10	0	2-74	1
49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	4-74	75	5	[illegible]	[illegible]	[illegible]	12-73	2
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	99999	[illegible]	75	10	15	2-74	0	50	0	25	25	2-74	3

APPENDIX D

[illegible] TEST VEHICLE USE AND MAINTENANCE DATA

[illegible]

VEH	YR	MAKE	MODEL	VIN	ODOM	PRDATE	N	VMT1	VMT2	%C	%S	%F	LOC	%W	%G	%T	%V	%B	LTU	W
51	72	CHEV	KING	[illegible]	[illegible]	[illegible]		12000	12000	50	25	25	4-74	30	15	45	10	0	4-74	4
52	72	CHEV	DISC	[illegible]	[illegible]	1-74	1	99999	99999	60	10	30	5-74	10	20	60	10	0	99-99	1
53	72	CHEV	NOVA	[illegible]	[illegible]	[illegible]	1	12000	12000	60	10	30	99-99	75	10	10	5	0	7-74	1
54	72	CHEV	KING	1M35R[illegible]	[illegible]	[illegible]	1	30000	30000	50	20	30	4-74	0	0	0	10	90	5-73	3
55	72	DATS	510	F1510[illegible]	[illegible]	[illegible]	1	18000	6000	50	20	30	99-99	0	5	80	0	15	99-99	2
56	72	DODG	TRAD	B21AE24714470	34911	7-72	1	12000	12000	10	10	80	6-74	0	20	20	60	0	1-74	4
57	72	DODG	DART	LL23C2R[illegible]	[illegible]	[illegible]	1	15000	15000	40	30	30	8-74	40	20	20	20	0	8-74	2
58	72	FORD	PINT	[illegible]	[illegible]	[illegible]	[illegible]	7000	0	20	60	20	3-74	60	5	5	15	15	3-74	2
59	72	FORD	MUST	2F01[illegible]	[illegible]	[illegible]	1	7000	6000	25	25	50	4-74	70	5	0	20	5	12-73	1
60	72	FORD	MUST	2F04H12[illegible]	38407	12-72	1	12000	0	26	74	0	99-99	80	10	0	0	10	99-99	2
61	72	FORD	CUST	2G7[illegible]	[illegible]	10-71	1	15000	12000	70	25	5	5-74	40	10	20	30	0	6-74	4
62	72	FORD	LTD	[illegible]	[illegible]	10-71	1	40000	30000	20	5	75	12-73	0	0	0	0	99	12-73	3
63	72	FORD	THUN	2Y87N10[illegible]	[illegible]	1-72	1	10000	5000	70	20	10	5-74	60	0	10	15	15	7-73	4
64	72	LINC	MARK	2Y89A875208	54564	7-74	1	99999	99999	99	99	99	99-99	99	99	99	99	99	99-99	9
65	72	MERC	MONT	F2Z54[illegible]	[illegible]	2-74	1	1000	99999	10	70	20	5-74	70	10	20	0	0	2-74	9
66	72	OLDS	DELT	3N57H2M421954	[illegible]	11-7[illegible]	2	12000	99999	30	30	40	11-73	0	50	0	0	50	11-73	1
67	72	OLDS	NINE	[illegible]	[illegible]	11-71	1	5000	5000	10	80	10	4-73	0	80	15	5	0	4-73	1
68	72	OPEL	1900	57[illegible]	31754	[illegible]	1	15000	15000	50	25	25	7-74	25	10	5	10	50	7-74	4
69	72	PLYM	FRY3	PH[illegible]	[illegible]	[illegible]		5000	99999	80	10	10	2-74	70	20	10	0	0	99-99	9
70	72	PLYM	FRY3	PH41G2D218855	[illegible]	1-72	1	12000	2000	25	50	25	5-74	60	10	5	25	0	12-73	3
71	72	PONT	VENT	[illegible]N2W37114[illegible]	45703	7-72	1	15000	30000	10	30	60	3-74	50	10	15	5	20	3-74	2
72	72	PONT	GRAN	2F57Y2A107[illegible]	[illegible]	1-72	1	40000	37000	10	10	80	2-74	10	10	10	10	60	2-74	1
73	72	TOYO	CELI	RA2100[illegible]17	30693	7-73	1	17000	0	40	20	40	2-74	70	5	0	25	0	6-74	1
74	72	VOLK	[illegible]BE	1122255716	[illegible]	[illegible]	1	16000	20000	25	50	25	99-99	60	10	0	20	10	6-74	2
75	72	VOLK	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	14000	65	20	15	4-74	10	50	5	10	25	4-74	2
76	71	AMER	JAVE	A1[illegible]H12[illegible]	33551	10-73	2	7000	0	15	10	75	3-74	80	5	5	10	0	3-74	3
77	71	BUIC	SKYL	4443912128775	96532	10-71	1	20000	30000	25	25	50	7-74	25	0	0	0	75	6-74	2
78	71	BUIC	ELEC	484391H418742	53360	99-73	1	20000	99999	70	20	10	6-74	50	10	20	20	0	11-73	1
79	71	CADI	DEVI	68[illegible]	25609	5-7[illegible]	[illegible]	17000	6000	60	35	5	3-74	80	10	10	0	0	9-73	4
80	71	CHEV	VEGA	14177[illegible]	[illegible]	8-71	1	9000	7000	40	30	30	6-74	90	5	5	0	0	5-74	2
81	71	CHEV	CAME	12487N5[illegible]	53571	9-71	1	15000	15000	65	0	35	99-99	30	10	10	50	0	7-73	1
82	71	CHEV	IMPA	1G457[illegible]	21772	10-73	2	3000	0	75	5	20	2-74	60	20	0	20	0	10-73	1
83	71	CHEV	IMPA	164[illegible]	[illegible]	4-71	1	[illegible]	12000	90	5	5	8-73	0	50	20	10	20	8-73	3
84	71	CHEV	IMPA	164391S142[illegible]	41865	2-72	2	18000	18000	80	10	10	4-74	5	50	30	5	10	2-74	1
85	71	CHEV	CAPR	16[illegible]	[illegible]	1-71	1	9000	9000	70	20	10	1-74	40	40	0	20	0	8-73	2
86	71	CHRY	IMPE	YH4[illegible]	46875	11-72	2	12000	12000	80	20	0	4-74	90	5	5	0	0	12-72	1
87	71	DATS	COUP	[illegible]	[illegible]	6-71	[illegible]	45000	3000	34	33	33	4-74	25	10	0	50	15	4-74	4
88	71	DODG	CORO	WL45G1G[illegible]	[illegible]	10-71	1	22000	22000	25	40	35	6-74	80	10	5	5	0	1-74	3
89	71	FORD	PINT	[illegible]	[illegible]	3-71	1	8000	8000	80	10	10	4-74	80	20	0	0	0	11-73	1
90	71	FORD	MAVE	1F91[illegible]	22245	10-70	1	5000	5000	60	30	10	3-74	0	75	25	0	0	6-73	1
91	71	FORD	MUST	[illegible]	[illegible]	10-7[illegible]	2	3000	0	90	5	5	2-74	70	10	5	5	10	2-74	2
92	71	FORD	CUST	[illegible]	[illegible]	[illegible]	1	4000	0	80	10	10	7-73	70	20	0	10	0	9-73	4
93	71	FORD	MAVE	[illegible]	22231	5-71	1	6000	6000	75	20	5	5-74	80	20	0	0	0	12-73	2
94	71	MERC	MARQ	1264[illegible]48	48404	7-72	2	10000	12000	[illegible]	20	20	6-74	50	20	20	10	0	7-74	3
95	71	OLDS	CUTL	3425[illegible]	[illegible]	5-71	1	15000	15000	75	10	15	6-74	75	5	10	10	0	6-74	2
96	71	OLDS	TORO	[illegible]	39430	5-71	1	5000	5000	80	10	10	2-74	90	0	5	5	0	2-74	1
97	71	PLYM	DUST	[illegible]	[illegible]	6-74	2	1000	99999	95	0	5	6-74	30	30	20	20	0	6-74	1
98	71	PLYM	SATE	RL45G1G[illegible]	[illegible]	5-71	1	10000	10000	50	50	0	12-73	0	34	33	33	0	12-73	4
99	71	PONT	FIRE	[illegible]	37974	9-70	1	15000	15000	50	35	15	3-74	15	10	0	50	25	3-73	3
100	71	PONT	CATA	252[illegible]	[illegible]	9-71	1	4000	4000	80	10	10	12-73	0	50	50	0	0	8-73	3

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

ST. LOUIS

VEH	YR	MAKE	MODL	VIN	ODOM	PRDATE	N	VMT1	VMT2	%C	%S	%F	LOC	%W	%G	%T	%V	%B	LTU	W
101	71	TOYO	CORO	[illegible]	7418	[illegible]	2	[illegible]	10000	85	[illegible]	10	4-74	85	15	0	0	0	4-74	1
102	71	VOLK	BEET	[illegible]	[illegible]	4-71	1	10000	7000	50	25	25	[illegible]	75	5	0	10	5	3-74	1
103	70	BUIC	ELEC	[illegible]	[illegible]	10-70	1	25000	25000	30	40	30	6-74	20	20	20	20	20	3-74	2
104	70	CHEV	IMPA	[illegible]	38727	[illegible]	1	4000	2000	75	20	5	8-74	75	25	0	0	0	8-74	2
105	70	CHEV	CHEL	[illegible]	41013	4-71	2	5000	10000	60	30	10	1-74	0	30	10	10	50	1-74	2
106	70	CHEV	KING	[illegible]	60579	10-72	2	12000	12000	75	5	20	99-99	90	5	5	0	0	99-99	4
107	70	CHEV	CHEL	[illegible]	90182	99-70	1	20000	20000	5	85	10	4-74	75	15	10	0	0	4-74	4
108	70	CHEV	IMPA	[illegible]	32966	9-70	1	2000	2000	90	5	5	9-73	5	80	15	0	0	9-73	3
109	70	CHEV	IMPA	[illegible]	42373	7-71	1	10000	10000	15	10	75	4-74	75	5	5	15	0	9-73	4
110	70	DODG	CHAR	[illegible]	62093	5-72	2	20000	20000	20	60	20	1-74	80	10	10	0	0	9-73	2
111	70	FORD	MAVE	[illegible]	39727	1-70	1	9000	9000	70	20	10	5-74	10	0	0	10	80	9-73	2
112	70	FORD	MUST	[illegible]	37563	7-71	2	6000	7000	95	5	0	2-74	50	25	25	0	0	9-73	3
113	70	FORD	LTD	[illegible]	37576	1-72	2	5000	99999	10	85	5	12-73	0	80	5	15	0	4-74	2
114	70	FORD	TORI	[illegible]	39441	[illegible]	1	3000	3000	33	33	34	99-99	0	40	40	20	0	99-99	4
115	70	FORD	LTD	[illegible]	[illegible]	2-70	1	10000	7000	75	15	10	3-74	0	20	60	20	0	9-73	3
116	70	MERC	MARQ	[illegible]	[illegible]	10-70	1	7000	8000	80	10	10	4-74	70	5	20	0	0	4-74	2
117	70	OLDS	CUTL	[illegible]	[illegible]	6-71	2	12000	12000	10	20	70	1-74	10	0	10	20	60	1-74	2
118	70	OLDS	NINE	[illegible]	60081	10-69	1	10000	10000	70	0	30	5-74	20	10	20	20	30	12-73	2
119	70	PLYM	FURY	[illegible]	[illegible]	3-70	2	13000	20000	80	0	20	11-71	20	20	20	10	30	1-74	4
120	70	PLYM	DUST	[illegible]	58213	10-72	2	12000	12000	50	25	25	[illegible]	50	0	0	25	25	4-74	2
121	70	PONT	LEMA	[illegible]	[illegible]	[illegible]	1	15000	18000	65	10	25	10-73	50	25	0	15	0	10-73	3
122	70	PONT	CATA	[illegible]	[illegible]	[illegible]	2	20000	20000	70	20	10	6-74	50	10	30	10	0	5-74	4
123	70	TOYO	CORO	[illegible]	[illegible]	5-70	1	12000	12000	30	30	40	5-74	10	40	25	25	0	5-74	1
124	70	VOLK	BEET	1102983204	77660	5-73	2	11000	0	[illegible]	25	15	1-74	0	65	15	0	0	1-74	[illegible]
125	69	AMER	JAVE	[illegible]	[illegible]	[illegible]	2	13000	[illegible]	[illegible]	20	20	4-74	10	25	5	60	0	8-73	4
126	69	BUIC	SKYL	[illegible]	[illegible]	[illegible]	2	11000	12000	80	10	10	1-74	70	10	5	5	10	1-74	2
127	69	CHEV	NOVA	[illegible]	[illegible]	8-69	1	10000	10000	30	30	40	2-74	0	70	20	10	0	2-74	2
128	69	CHEV	FIRE	[illegible]	24072	10-72	2	12000	12000	90	5	5	4-74	75	5	5	15	0	12-73	4
129	69	CHEV	CAMA	[illegible]	[illegible]	[illegible]	1	5000	5000	90	5	5	2-73	90	10	0	0	0	11-73	2
130	69	CHEV	TOWN	[illegible]	52811	[illegible]	1	8000	12000	95	0	5	12-73	0	85	15	0	0	12-73	3
131	69	CHEV	TOWN	[illegible]	[illegible]	7-71	2	[illegible]	21000	95	5	0	10-73	0	5	80	5	10	10-73	3
132	69	CHEV	IMPA	[illegible]	[illegible]	5-69	1	9000	12000	50	25	25	4-74	0	50	0	50	0	9-73	4
133	69	CHRY	NEWP	[illegible]	49103	4-70	1	[illegible]	12000	90	0	10	1-74	90	0	10	0	0	99-99	[illegible]
134	69	DODG	DART	[illegible]	[illegible]	[illegible]	2	[illegible]	0	10	40	50	3-74	40	10	0	10	40	[illegible]	4
135	69	FORD	FAIR	[illegible]	[illegible]	[illegible]	2	[illegible]	0	1	24	75	3-74	65	2	1	32	0	1-74	4
136	69	FORD	FAIR	[illegible]	73473	[illegible]	1	[illegible]	26000	60	30	10	12-73	5	5	0	0	90	12-73	4
137	69	FORD	STAW	[illegible]	60175	[illegible]	1	8000	9000	60	10	30	12-73	30	10	20	0	40	1-74	3
138	69	FORD	MUST	[illegible]	53336	[illegible]	1	7000	10000	34	33	33	6-74	20	30	10	20	20	6-74	2
139	69	FORD	GALA	[illegible]	[illegible]	[illegible]	1	15000	17000	10	15	75	2-74	20	10	0	70	0	[illegible]	4
140	69	MERC	COLO	[illegible]	50145	[illegible]	1	11000	12000	50	50	0	99-99	60	10	0	30	0	9-73	4
141	69	OLDS	TORO	[illegible]	53405	[illegible]	2	13000	0	10	15	75	2-74	75	5	15	5	0	2-74	3
142	69	PLYM	FURY	[illegible]	47480	10-72	2	7000	0	50	25	25	12-73	70	10	10	10	0	10-73	1
143	69	PONT	LEMA	[illegible]	[illegible]	4-73	2	[illegible]	0	75	15	10	6-73	50	25	25	0	0	6-73	4
144	69	PONT	EXEC	[illegible]	[illegible]	[illegible]	2	[illegible]	0	80	10	10	12-73	75	10	0	15	0	11-73	4
145	69	VOLK	BEET	[illegible]	[illegible]	[illegible]	2	8000	10000	60	10	10	6-74	20	20	20	20	20	1-74	[illegible]
146	68	AMER	AMER	[illegible]	[illegible]	[illegible]	2	10000	0	70	30	0	5-74	65	15	20	0	0	5-73	4
147	68	BUIC	ELEC	[illegible]	68113	[illegible]	[illegible]	15000	15000	10	15	75	6-74	75	5	5	5	10	4-74	2
148	68	CADI	DEVI	B8108320	[illegible]	6-71	2	10000	10000	15	10	75	1-74	90	5	5	0	0	6-73	4
149	68	CHEV	NOVA	[illegible]	[illegible]	[illegible]	1	[illegible]	11000	70	15	15	4-74	80	5	5	0	0	12-73	4
150	68	CHEV	BELA	[illegible]	[illegible]	[illegible]	2	4000	0	[illegible]	5	5	9-73	75	10	10	5	0	9-73	2

[illegible] F

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

ST. LOUIS

VEH	YR	MAKE	MODL	VIN	ODOM	PRDATE	N	MIT1	MIT2	%C	%S	%F	LOC	%W	%G	%T	%V	%B	LTU	W
151	68	CHEV	IMPA	164378J215748	72312	8-73	2	11000	0	50	20	30	3-74	50	10	10	30	0	10-73	4
152	68	CHEV	BELA	153698S113491	70969	9-73	2	3000	0	80	10	10	2-74	0	60	40	10	0	2-74	4
153	68	CHEV	IMPA	1648 8S214420	11121	4-74	2	3000	99999	80	10	10	7-74	50	10	10	20	10	7-74	4
154	68	DODG	CHAR	XP29H8G257482	58571	10-70	2	7000	7000	0	75	25	1-74	70	5	0	25	0	7-73	4
155	68	FORD	MUST	8F01T136031	72443	1-74	2	3000	0	75	10	15	99-99	80	0	20	0	0	99-99	9
156	68	FORD	MUST	8F02C211864	32164	6-69	2	12000	12000	60	30	10	3-74	20	20	20	5	35	3-74	3
157	68	FORD	TORI	8K42F206303	25862	6-73	2	5000	0	75	15	10	7-73	80	10	0	5	5	10-73	4
158	68	FORD	GALA	8G50Y124996	78670	8-71	2	10000	10000	50	30	20	4-74	0	50	50	0	0	9-73	4
159	68	MERC	COUG	8F91F515711	45947	8-72	2	1000	0	99	99	99	11-73	50	20	30	0	0	11-73	4
160	68	OLDS	DELM	354378X166047	72385	7-68	1	10000	10000	90	5	5	1-74	0	5	5	0	90	10-73	4
161	68	PLYM	FURY	PL43F8D237948	48167	3-69	1	8000	8000	75	3	22	9-73	80	5	10	3	2	4-73	3
162	68	PONT	CATA	252398X128569	34547	12-73	2	5000	0	75	0	25	12-73	20	5	60	10	5	10-73	1
163	68	VOLK	BEET	158305420	54499	9-68	1	5000	5000	80	10	10	10-73	0	80	10	10	0	10-73	1
164	67	AMER	AMBA	A7HA82P128439	18245	5-74	2	99999	99999	80	15	5	99-99	5	75	5	10	5	99-99	9
165	67	BUIC	LESA	452677D131508	97728	99-67	1	10000	10000	10	10	80	7-74	10	10	0	0	80	2-74	2
166	67	CADI	FLEE	F7282768	86148	2-74	2	4000	99999	80	5	15	99-99	0	50	30	20	0	99-99	9
167	67	CHEV	CAMA	123377N234886	69750	10-71	2	8000	8000	20	60	20	8-74	70	10	10	10	0	3-74	4
168	67	CHEV	CAPR	166397S137073	45193	2-74	2	0	0	90	5	5	3-74	50	30	5	0	15	2-74	2
169	67	CHEV	IMPA	164877S186654	73042	99-67	1	25000	20000	10	70	20	9-73	50	20	10	20	0	1-74	2
170	67	CHEV	IMPA	164397S153835	74057	9-73	2	12000	99999	70	30	0	99-99	30	30	40	0	0	2-74	4
171	67	CHRY	NEWP	CE43G7320064	27557	3-66	2	25000	20000	10	80	10	3-74	80	10	0	10	0	3-74	4
172	67	DODG	CORO	WH23F77217619	39202	6-73	2	15000	99999	70	30	10	2-74	40	5	0	15	40	3-73	1
173	67	FORD	CUST	7A50C141455	80177	9-70	2	16000	12000	10	40	50	4-74	75	10	0	15	0	7-73	2
174	67	FORD	STAW	7A71C210479	17191	7-67	1	15000	15000	25	25	50	3-74	40	25	10	25	0	9-73	3
175	67	FORD	LTD	7062H213439	97229	9-73	2	1000	0	90	0	10	2-74	80	5	5	10	0	11-73	4
176	67	MERC	MONC	7Z54H585487	92922	9-70	2	10000	10000	40	60	0	7-74	95	5	0	0	0	99-99	2
177	67	OLDS	DELT	354397X121518	79590	9-73	2	6000	0	80	10	10	3-74	80	0	0	20	0	9-73	3
178	67	PLYM	VALI	VH21B72379014	80827	10-67	1	11000	11000	50	0	50	6-74	85	10	5	0	0	1-72	2
179	67	PONT	FIRE	223377U181468	42209	12-73	2	14000	4000	65	20	15	12-73	60	5	5	10	20	12-73	2
180	67	VOLK	BEET	117329129	78490	4-67	1	10000	11000	60	10	30	12-73	50	30	20	0	0	3-72	4

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

Column Heading	Description
VEH:	Vehicle Number
YR:	Model Year
MAKE:	Vehicle Make
MODL:	Vehicle Model
CID:	Engine Displacement Cubic Inches
IHC/ICO:	Idle Exhaust Hydrocarbons, Parts per Million; and Idle Exhaust Carbon Monoxide, Percent
TEST TYPE:	CT - Cold Transient 505 sec. CS - Cold Stabilized 867 sec. HT - Hot Transient 505 sec. HS - Hot Stabilized 867 sec.
FTP TYPE:	1972 - Exhaust Emissions Results for CT + CS 1975 - Weighted 1975 Exhaust Emissions for CT + CS + HT Hot St. - Exhaust Emissions Results for HT + HS (Expressed in grams per mile for emissions and miles per gallon for fuel economy. Fuel economy assumes carbon/hydrogen ratio to equal 1.85.

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	#	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
1	M	74	BUIC	ELEC	455	100	CT	4.36	48.19	961.4	2.33	8.45	1972	3.54	31.59	981.9	1.86	8.51
						0.4	CS	2.79	16.36	1000.7	1.43	8.58	1975	3.22	23.19	934.2	1.79	9.05
							HT	3.21	17.38	786.6	2.08	10.77	HOT ST	2.91	16.77	880.8	1.70	9.69
							HS	2.64	16.21	967.2	1.35	8.87						
2	M	74	CHEV	MONT	350	60	CT	3.31	34.50	792.5	1.99	10.36	1972	2.49	24.50	839.3	1.60	10.02
						0.1	CS	1.73	15.32	882.3	1.24	9.74	1975	1.99	19.67	818.4	1.53	10.38
							HT	1.50	16.81	715.6	1.75	11.89	HOT ST	1.54	14.30	781.5	1.45	10.98
							HS	1.57	11.99	841.9	1.18	10.26						
3	M	74	CHEV	IMPA	350	120	CT	6.15	115.69	770.8	2.27	9.13	1972	4.22	67.05	779.7	1.83	9.88
						0.5	CS	2.44	22.39	787.9	1.43	10.69	1975	3.24	39.54	752.7	1.96	10.76
							HT	2.57	14.86	671.8	2.75	12.62	HOT ST	2.53	19.95	717.1	2.01	11.74
							HS	2.49	24.63	758.7	1.34	11.02						
4	M	74	DODG	MAXI	360	60	CT	3.40	41.93	640.8	6.16	12.37	1972	2.85	27.54	657.5	5.39	12.51
						0.5	CS	2.36	14.33	672.7	4.68	12.63	1975	2.79	22.43	656.4	5.52	12.68
							HT	3.16	23.19	636.8	6.64	12.99	HOT ST	2.70	18.30	651.7	5.55	12.89
							HS	2.28	13.81	665.4	4.54	12.79						
5	M	74	FORD	MAVE	302	140	CT	3.67	50.62	637.1	3.14	12.19	1972	3.13	45.94	617.3	2.54	12.69
						1.9	CS	2.63	41.65	599.1	1.99	13.19	1975	2.83	40.47	593.5	2.19	13.33
							HT	2.57	30.54	550.1	1.86	14.65	HOT ST	2.65	35.95	539.0	1.93	14.70
							HS	2.72	40.92	528.9	1.99	14.75						
6	M	74	FORD	GRAN	351	60	CT	2.89	36.22	821.0	1.91	10.01	1972	2.20	25.03	902.5	1.58	9.36
						0.1	CS	1.56	14.76	977.4	1.27	8.83	1975	1.83	20.41	890.6	1.50	9.56
							HT	1.56	19.29	777.3	1.62	10.93	HOT ST	1.48	15.42	856.5	1.48	10.03
							HS	1.41	11.87	929.2	1.36	9.32						
7	M	74	OLDS	CUTL	350	300	CT	3.14	28.01	705.5	2.11	11.69	1972	3.05	16.93	712.1	1.93	11.86
						0.3	CS	2.96	6.75	718.2	1.77	12.03	1975	2.87	12.33	687.8	1.94	12.40
							HT	2.48	11.15	616.4	2.13	13.83	HOT ST	2.83	9.62	658.3	2.07	13.01
							HS	3.14	8.22	696.7	2.01	12.34						
8	M	74	PLYM	DUST	318	50	CT	3.62	44.64	640.0	3.30	12.30	1972	3.18	40.74	635.1	2.49	12.52
						0.6	CS	2.77	37.15	630.7	1.75	12.72	1975	2.81	33.37	618.5	2.13	13.06
							HT	2.28	17.65	579.3	1.98	14.46	HOT ST	2.38	24.19	592.3	1.91	13.92
							HS	2.48	30.20	604.5	1.84	13.46						
9	M	74	PONT	CATA	400	190	CT	5.70	63.06	925.3	1.43	8.52	1972	4.80	74.06	882.6	1.30	8.75
						3.0	CS	3.97	84.15	843.5	1.17	8.98	1975	3.99	70.93	836.5	1.35	9.24
							HT	2.74	51.61	756.4	1.62	10.49	HOT ST	3.36	66.38	780.3	1.35	9.92
							HS	3.94	79.94	802.2	1.10	9.14						
10	M	74	VOLK	BEET	97	50	CT	3.63	42.93	330.6	2.11	21.68	1972	3.13	54.85	330.8	1.76	20.80
						1.3	CS	2.68	65.79	331.0	1.16	20.05	1975	2.81	54.64	324.2	1.67	21.19
							HT	2.45	42.18	306.5	2.09	23.33	HOT ST	2.66	57.00	320.7	1.61	21.20
							HS	2.85	70.61	333.8	1.16	19.56						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
11	E	73	AMER	MATA	258	150	CT	1.93	24.26	577.1	6.33	14.27	1972	1.46	15.75	579.2	4.48	14.59
						3.4	CS	1.03	7.94	581.2	2.79	14.87	1975	1.75	13.52	561.0	4.06	15.11
							HT	3.00	16.07	510.1	4.76	16.29						
							HS	0.0	0.0	0.0	0.0	0.0						
11	RE	73	AMER	MATA	258	150	CT	2.84	28.79	613.5	6.35	13.30	1972	1.95	19.73	622.7	4.45	13.45
						3.4	CS	1.14	11.41	631.1	2.71	13.60	1975	1.72	15.98	602.6	4.19	14.02
							HT	1.99	15.03	539.7	5.39	15.59						
							HS	0.0	0.0	0.0	0.0	0.0						
12	E	73	BUIC	LESA	350	65	CT	3.77	63.03	830.9	3.90	9.43	1972	2.70	38.22	819.3	3.09	10.00
						0.1	CS	1.71	15.45	808.7	2.35	10.59	1975	2.14	25.06	780.5	3.06	10.72
							HT	1.74	18.45	688.1	3.77	12.28						
							HS	0.0	0.0	0.0	0.0	0.0						
12	RE	73	BUIC	LESA	350	65	CT	2.79	43.17	783.3	3.21	10.32	1972	2.16	24.66	783.3	2.73	10.71
						0.1	CS	1.57	7.66	783.8	1.91	11.09	1975	1.91	15.52	750.5	2.54	11.37
							HT	1.90	9.68	663.1	3.24	12.97						
							HS	0.0	0.0	0.0	0.0	0.0						
13	E	73	BUIC	RIVI	455	40	CT	5.57	52.35	828.8	3.14	9.56	1972	3.96	31.25	855.9	2.64	9.68
						0.1	CS	2.48	11.83	880.9	2.18	9.78	1975	3.30	20.04	829.1	2.67	10.19
							HT	3.17	11.26	730.1	3.26	11.71						
							HS	0.0	0.0	0.0	0.0	0.0						
13	RE	73	BUIC	RIVI	455	40	CT	5.77	63.98	818.8	2.97	9.47	1972	4.03	37.76	842.2	2.49	9.71
						0.1	CS	2.43	13.69	863.8	2.04	9.94	1975	3.32	23.63	812.5	2.50	10.32
							HT	3.19	12.20	709.9	3.02	12.01						
							HS	0.0	0.0	0.0	0.0	0.0						
14	E	73	CADI	COUP	472	50	CT	3.17	51.85	944.9	4.65	8.57	1972	2.48	28.67	963.0	4.83	8.74
						0.2	CS	1.35	7.38	979.6	5.00	8.90	1975	2.23	17.25	933.1	5.11	9.19
							HT	2.26	10.01	831	5.65	10.39						
							HS	0.0	0.0	0.0	0.0	0.0						
14	RE	73	CADI	COUP	472	50	CT	3.19	48.13	943.0	4.79	8.63	1972	2.60	36.79	940.4	4.96	8.96
						0.2	CS	2.06	7.20	937.9	5.11	9.29	1975	2.34	16.64	912.8	5.28	9.38
							HT	2.24	10.92	842.0	5.98	10.25						
							HS	0.0	0.0	0.0	0.0	0.0						
15	M	73	CAPR	CAPR	122	80	CT	2.78	43.31	432.1	3.00	17.44	1972	2.04	35.38	435.5	2.23	17.84
						0.9	CS	1.37	28.10	438.4	1.53	18.24	1975	1.68	29.06	422.7	2.11	18.75
							HT	1.43	20.15	385.1	2.55	21.06	HOT ST.	1.28	21.99	402.6	1.96	20.12
							HS	1.15	23.68	418.3	1.41	19.34						
16	E	73	CHEV	VEGA	140	70	CT	4.63	55.59	494.8	5.69	11.88	1972	3.52	36.53	452.5	4.29	17.04
						0.2	CS	2.50	19.04	413.6	3.01	19.67	1975	3.21	27.30	435.7	4.26	18.16
							HT	3.48	21.73	433.3	5.57	18.55						
							HS	0.0	0.0	0.0	0.0	0.0						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
16	RE	73	CHEV	VEGA	140	70	CT	4.33	55.54	499.0	5.53	14.80	1972	3.32	38.50	458.3	4.23	16.77
						0.2	CS	2.39	22.85	420.9	3.04	19.12	1975	2.96	28.88	440.9	4.19	17.91
							HT	3.04	20.28	435.2	5.40	18.63						
							HS	0.0	0.0	0.0	0.0	0.0						
17	E	73	CHEV	1/2	250	68	CT	2.61	55.04	591.1	4.91	12.95	1972	1.89	34.31	603.7	3.83	13.38
						0.2	CS	1.24	15.28	615.3	2.82	13.80	1975	1.75	25.28	590.0	4.00	13.98
							HT	2.09	21.92	540.9	5.55	15.26						
							HS	0.0	0.0	0.0	0.0	0.0						
17	RE	73	CHEV	1/2	250	68	CT	9.18	132.80	613.8	5.53	10.43	1972	5.38	68.31	679.7	1.38	11.04
						0.2	CS	1.90	9.11	740.1	3.37	11.68	1975	3.60	36.65	678.0	4.61	11.89
							HT	2.65	16.73	607.8	6.37	13.82						
							HS	0.0	0.0	0.0	0.0	0.0						
18	M	73	CHEV	NOVA	307	180	CT	3.74	41.89	606.7	2.75	12.97	1972	3.61	24.83	628.3	2.45	13.08
						0.1	CS	3.50	9.16	648.1	2.17	13.18	1975	3.49	18.73	615.0	2.51	13.54
							HT	3.30	19.54	558.1	2.98	14.82	HOT ST	3.38	13.15	587.5	2.53	14.35
							HS	3.46	7.28	614.4	2.11	13.94						
19	M	73	CHEV	1/2	307	120	CT	3.59	44.84	734.6	5.77	10.87	1972	2.67	27.98	737.9	4.61	11.23
						0.2	CS	1.82	12.50	740.9	3.55	11.59	1975	2.20	20.51	714.0	4.68	11.79
							HT	1.86	17.45	647.0	6.02	13.05	HOT ST	1.89	14.65	693.6	4.73	12.29
							HS	1.91	12.08	736.1	3.54	11.66						
20	M	73	CHEV	CUST	350	140	CT	3.07	37.83	763.7	8.13	10.66	1972	2.58	30.86	702.8	6.29	11.69
						0.4	CS	2.12	24.46	646.8	4.60	12.83	1975	2.34	24.36	668.3	6.21	12.43
							HT	2.21	13.99	637.1	7.85	13.32	HOT ST	2.18	17.11	645.5	6.27	13.07
							HS	2.15	19.97	652.8	4.81	12.85						
21	E	73	CHEV	IMPA	307	90	CT	3.76	41.36	671.2	5.19	11.87	1972	3.15	33.60	688.6	4.16	11.82
						0.3	CS	2.60	26.48	704.6	3.27	11.77	1975	2.86	28.30	669.6	4.17	12.28
							HT	2.68	21.93	601.5	5.21	13.78						
							HS	0.0	0.0	0.0	0.0	0.0						
21	RE	73	CHEV	IMPA	307	90	CT	3.53	41.40	698.7	5.10	11.46	1972	3.11	36.05	732.1	4.12	11.12
						0.3	CS	2.72	31.13	762.8	3.22	10.82	1975	2.86	30.64	712.0	4.13	11.54
							HT	2.61	21.59	625.1	5.14	13.31						
							HS	0.0	0.0	0.0	0.0	0.0						
22	M	73	CHEV	MONT	350	100	CT	3.80	59.25	669.0	3.38	11.47	1972	2.92	39.04	612.9	2.98	12.99
						1.8	CS	2.11	20.48	561.1	2.61	14.79	1975	2.53	27.41	583.9	3.15	13.98
							HT	2.36	16.61	562.7	4.01	14.89	HOT ST	2.43	20.17	595.1	3.51	13.99
							HS	2.49	23.45	624.9	3.04	13.26						
23	E	73	CHEV	IMPA	400	55	CT	5.74	74.99	848.3	2.09	9.02	1972	4.02	57.72	870.9	2.48	9.11
						0.8	CS	2.45	41.86	891.9	1.91	9.20	1975	3.22	46.58	839.9	2.45	9.62
							HT	2.79	34.17	734.5	2.99	11.14						
							HS	0.0	0.0	0.0	0.0	0.0						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOX	MPG	FTP TYPE	HC	CO	CO2	NOX	MPG
23	RE	73	CHEV	IMPA	400	55	CT	7.10	91.02	868.2	3.23	8.59	1972	4.84	67.08	886.7	2.58	9.81
						0.5	CS	2.76	45.10	901.7	1.99	9.03	1975	3.62	52.13	896.5	2.57	9.35
							HT	2.64	36.30	757.1	3.19	10.78						
							HS	0.0	0.0	0.0	0.0	0.0						
24	E	73	CHRY	IMPE	440	100	CT	13.09	233.27	666.5	1.87	8.26	1972	9.30	209.36	665.7	1.74	8.67
						0.8	CS	5.82	187.41	665.1	1.42	9.08	1975	6.58	157.43	671.5	2.85	9.45
							HT	3.12	42.95	687.7	6.31	11.60						
							HS	0.0	0.0	0.0	0.0	0.0						
24	RE	73	CHRY	IMPE	440	100	CT	7.45	141.38	771.1	4.83	8.73	1972	6.08	127.65	751.5	4.68	9.14
						0.8	CS	4.83	115.05	732.2	4.54	9.55	1975	5.05	107.97	733.8	5.02	9.66
							HT	3.65	69.25	706.7	6.08	10.73						
							HS	0.0	0.0	0.0	0.0	0.0						
25	M	73	DATS	1200	71	155	CT	3.42	25.00	294.6	2.50	25.76	1972	2.38	19.77	297.6	1.87	26.41
						1.6	CS	1.42	14.77	300.3	1.29	27.04	1975	2.24	16.67	283.6	1.78	28.02
							HT	2.91	13.63	243.4	2.19	32.40	HOT ST	2.06	13.09	275.3	1.69	29.36
							HS	1.27	12.59	304.6	1.24	27.03						
26	E	73	DODG	SWIN	225	70	CT	2.70	59.13	471.6	2.38	15.19	1972	[illegible]	49.12	458.3	2.43	16.37
						1.0	CS	1.72	39.94	446.2	2.53	17.26	1975	1.96	41.73	445.0	2.48	17.18
							HT	1.87	32.03	422.7	2.50	18.54						
							HS	0.0	0.0	0.0	0.0	0.0						
26	RE	73	DODG	SWIN	225	70	CT	2.20	43.29	511.1	2.72	15.15	1972	1.74	27.30	499.7	2.86	16.20
						1.0	CS	1.31	12.62	489.3	3.00	17.30	1975	1.59	20.97	485.5	2.90	16.96
							HT	1.67	20.09	459.0	2.84	17.91						
							HS	0.0	0.0	0.0	0.0	0.0						
27	M	73	DODG	VAN	318	170	CT	4.79	46.21	550.3	3.16	13.91	1972	3.64	40.50	543.4	2.47	14.35
						1.5	CS	2.58	35.17	537.1	1.84	14.78	1975	3.11	35.13	526.5	2.60	15.01
							HT	2.86	26.61	488.2	3.25	16.47	HOT ST	2.63	27.01	512.3	2.74	15.77
							HS	2.42	27.38	534.4	1.90	15.17						
28	E	73	FORD	PINT	122	30	CT	2.58	48.42	390.1	4.30	18.99	1972	2.22	27.44	393.0	3.25	19.81
						0.2	CS	0.97	8.18	414.5	2.27	20.63	1975	1.70	18.77	388.5	3.11	20.97
							HT	1.68	16.64	345.2	3.77	23.57						
							HS	0.0	0.0	0.0	0.0	0.0						
28	RE	73	FORD	PINT	122	30	CT	3.17	41.60	352.1	4.77	20.72	1972	2.16	27.49	388.4	3.85	20.25
						0.2	CS	1.24	14.54	420.9	3.00	19.83	1975	1.75	20.17	384.4	3.82	21.06
							HT	1.65	14.77	330.1	4.68	24.21						
							HS	0.0	0.0	0.0	0.0	0.0						
29	M	73	FORD	SUPE	250	120	CT	7.26	60.32	490.6	4.60	14.59	1972	5.86	53.27	500.9	2.83	14.72
						3.2	CS	4.58	46.79	510.3	2.13	14.84	1975	5.51	43.97	486.3	2.70	15.50
							HT	5.97	26.23	437.2	3.11	17.25	HOT ST	5.16	33.21	457.5	2.61	16.56
							HS	4.42	39.63	495.5	2.15	15.53						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
30	M	73	FORD	MAVE	302	60	CT	3 16	37 41	649 8	2 71	12 35	1972	2 51	25 79	647 5	2 26	12 76
						0 1	CS	1 92	15 12	645 1	1 85	13 15	1975	2 19	18 63	626 1	2 29	13 41
							HT	1 97	11 17	571 3	2 81	14 92	HOT ST	1 91	11 16	600 7	2 34	14 22
							HS	1 85	11 16	627 [illegible]	1 90	13 64						
31	E	73	FORD	TORI	351	420	CT	10 52	103 55	694 9	3 28	9 96	1972	11 72	128 24	684 1	2 24	9 62
						5 4	CS	12 83	150 91	674 1	1 28	9 33	1975	11 22	123 16	660 5	1 90	9 98
							HT	8 66	84 94	608 5	2 06	11 54						
							HS	0 0	0 0	0 0	0 0	0 0						
31	RE	73	FORD	TORI	351	420	CT	9 94	106 57	694 5	3 17	9 94	1972	11 57	125 32	688 2	2 17	9 63
						5 4	CS	13 06	142 54	682 5	1 25	9 37	1975	11 04	118 79	670 5	1 88	9 95
							HT	8 02	82 63	629 6	2 13	11 31						
							HS	0 0	0 0	0 0	0 0	0 0						
32	E	73	FORD	GALA	351	220	CT	3 71	80 57	735 [illegible]	2 60	10 16	1972	3 50	88 86	730 0	1 95	10 08
						6 4	CS	3 30	96 47	724 8	1 35	10 01	1975	3 61	87 78	707 8	1 84	10 45
							HT	4 13	58 28	654 [illegible]	2 19	11 70						
							HS	0 0	0 0	0 0	0 0	0 0						
32	RE	73	FORD	GALA	351	220	CT	5 19	100 48	736 5	2 63	9 75	1972	4 23	100 41	740 3	1 99	9 74
						6 4	CS	3 34	100 35	743 9	1 41	9 73	1975	3 85	91 15	718 6	1 84	10 16
							HT	3 81	66 52	656 9	2 08	11 48						
							HS	0 0	0 0	0 0	0 0	0 0						
33	E	73	FORD	RANC	400	80	CT	5 35	132 71	808 8	1 71	8 58	1972	4 03	103 34	809 8	1 52	9 01
						0 0	CS	2 82	76 38	810 8	1 35	9 45	1975	3 34	84 08	786 7	1 50	9 55
							HT	2 81	62 13	724 1	1 62	10 69						
							HS	0 0	0 0	0 0	0 0	0 0						
33	RE	73	FORD	RANC	400	80	CT	4 07	106 45	876 3	1 86	8 40	1972	3 22	82 52	854 8	1 65	8 93
						0 0	CS	2 45	60 55	835 0	1 45	9 47	1975	2 79	67 27	814 7	1 66	9 55
							HT	2 48	50 57	729 3	1 90	10 87						
							HS	0 0	0 0	0 0	0 0	0 0						
34	E	73	FORD	GALA	400	350	CT	2 77	43 95	773 9	3 90	10 42	1972	2 76	26 60	758 0	3 27	10 98
						0 2	CS	2 76	10 67	743 5	2 69	11 55	1975	2 67	16 95	733 1	3 40	11 56
							HT	2 43	8 59	682 6	4 40	12 62						
							HS	0 0	0 0	0 0	0 0	0 0						
34	RE	73	FORD	GALA	400	350	CT	2 72	46 08	778 7	3 34	10 33	1972	2 45	27 18	740 7	2 79	11 22
						0 2	CS	2 20	9 82	705 8	2 28	12 19	1975	2 38	17 22	709 1	2 88	11 94
							HT	2 47	9 58	663 1	3 69	12 94						
							HS	0 0	0 0	0 0	0 0	0 0						
35	M	73	MAZD	RX-2	70	50	CT	6 01	29 64	551 8	1 23	14 38	1972	3 72	22 18	606 8	1 01	13 59
						1 7	CS	1 61	15 34	657 3	0 80	12 93	1975	3 14	21 50	593 7	1 10	13 91
							HT	4 97	27 14	504 0	1 58	15 79	HOT ST	3 59	26 24	578 3	1 21	14 07
							HS	2 32	25 42	646 4	0 86	12 80						

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LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
36	E	73	MERC	MONT	351	150	CT	3 44	37 85	799 8	3 05	10 20	1972	2 98	26 85	793 2	2 50	10 51
						0 1	CS	2 55	16 75	787 1	1 99	10 81	1975	2 83	21 76	764 1	2 47	11 00
							HT	2 91	19 19	693 3	2 93	12 12						
							HS	0 0	0 0	0 0	0 0	0 0						
36	RE	73	MERC	MONT	351	150	CT	4 57	59 65	753 3	2 64	10 31	1972	3 71	44 91	777 2	2 23	10 33
						0 1	CS	2 93	31 38	799 2	1 85	10 35	1975	3 38	36 29	757 9	2 22	10 75
							HT	3 34	28 05	682 6	2 61	12 04						
							HS	0 0	0 0	0 0	0 0	0 0						
37	E	73	OLDS	CUTL	350	80	CT	2 94	31 50	805 5	2 62	10 27	1972	2 56	21 48	801 9	2 48	10 52
						0 4	CS	2 21	12 28	798 7	2 35	10 76	1975	2 29	15 57	767 1	2 57	11 11
							HT	1 94	9 86	677 7	2 97	12 69						
							HS	0 0	0 0	0 0	0 0	0 0						
37	RE	73	OLDS	CUTL	350	80	CT	2 43	25 26	829 0	3 21	10 13	1972	2 24	17 29	852 6	2 64	10 36
						0 4	CS	2 05	9 97	816 6	2 13	10 58	1975	2 08	12 79	788 9	2 54	10 89
							HT	1 86	8 78	705 7	2 83	12 24						
							HS	0 0	0 0	0 0	0 0	0 0						
38	M	73	OLDS	98	455	400	CT	1 94	20 26	981 8	3 02	8 71	1972	1 73	15 23	977 2	2 56	8 82
						0 1	CS	1 53	10 61	973 0	2 14	8 93	1975	1 92	13 22	931 3	2 48	9 27
							HT	2 64	12 89	813 7	2 73	10 54	HOT ST	2 11	11 41	873 0	2 37	9 89
							HS	1 63	10 05	927 5	2 04	9 36						
39	E	73	PLYM	DUST	318	120	CT	6 35	59 26	544 3	4 09	13 50	1972	5 81	60 28	561 5	3 01	13 16
						4 0	CS	5 31	61 22	577 3	2 01	12 86	1975	5 14	53 92	541 7	3 02	13 81
							HT	3 89	35 93	471 5	4 12	16 43						
							HS	0 0	0 0	0 0	0 0	0 0						
39	RE	73	PLYM	DUST	318	120	CT	6 04	51 38	510 1	3 78	14 55	1972	5 47	55 23	546 4	2 93	13 65
						4 0	CS	4 94	58 76	579 7	2 15	12 91	1975	4 86	51 10	534 9	2 98	14 08
							HT	3 82	36 26	468 2	3 96	16 52						
							HS	0 0	0 0	0 0	0 0	0 0						
40	M	73	PLYM	FURY	360	10	CT	2 96	58 96	718 5	4 11	10 82	1972	2 09	43 65	727 4	3 66	11 06
						0 5	CS	1 29	29 59	735 5	3 25	11 29	1975	1 73	34 66	697 4	3 64	11 72
							HT	1 64	26 01	608 8	4 03	13 56	HOT ST	1 45	30 51	669 1	3 59	12 30
							HS	1 27	34 64	724 5	3 20	11 34						
41	M	73	PONT	VENT	350	800	CT	26 81	41 31	716 4	3 74	10 25	1972	27 09	26 57	682 8	3 41	10 95
						0 2	CS	27 34	13 03	651 9	3 10	11 69	1975	25 79	19 40	648 7	3 67	11 67
							HT	22 07	15 04	591 6	4 71	12 96	HOT ST	24 54	12 17	621 8	3 94	12 35
							HS	26 81	9 54	649 6	3 24	11 84						
42	M	73	PONT	FIRE	400	190	CT	5 72	89 39	643 1	1 19	11 07	1972	4 82	94 04	574 9	0 99	12 03
						4 3	CS	3 99	98 32	512 3	0 81	13 07	1975	4 29	87 09	540 8	1 32	12 84
							HT	3 79	63 91	518 3	2 38	14 08	HOT ST	3 97	81 96	533 4	1 61	13 16
							HS	4 13	98 54	547	0 89	12 41						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
43	E	73	TOYO	CELI	120	160	CT	3.17	46.65	342.5	5.11	20.85	1972	3.35	51.22	337.9	4.64	20.70
						3.7	CS	3.52	55.41	333.6	4.20	20.56	1975	3.28	44.82	327.4	4.78	21.75
							HT	2.91	23.20	304.0	5.64	25.39						
							HS	0.0	0.0	0.0	0.0	0.0						
43	RE	73	TOYO	CELI	120	160	CT	4.57	50.24	343.5	5.79	20.32	1972	3.88	50.85	338.6	5.10	20.61
						3.7	CS	3.26	51.42	334.1	4.46	20.88	1975	3.48	42.95	330.4	5.33	21.71
							HT	3.08	21.26	313.1	6.63	24.90						
							HS	0.0	0.0	0.0	0.0	0.0						
44	E	73	VOLK	BEET	97	40	CT	6.55	64.14	311.6	3.95	20.50	1972	6.20	77.85	308.5	2.84	19.71
						1.0	CS	5.87	90.44	305.7	1.82	19.04	1975	5.60	74.29	301.0	2.67	20.39
							HT	4.35	51.10	284.0	3.33	23.48						
							HS	0.0	0.0	0.0	0.0	0.0						
44	RE	73	VOLK	BEET	97	40	CT	5.89	66.56	307.1	3.81	20.62	1972	5.70	75.37	309.3	2.78	19.91
						1.0	CS	5.52	83.46	311.1	1.83	19.31	1975	5.11	71.73	299.7	2.60	20.71
							HT	3.73	53.21	272.2	3.15	24.15						
							HS	0.0	0.0	0.0	0.0	0.0						
45	M	73	VOLK	BUS	103	60	CT	2.60	38.52	446.5	4.39	17.23	1972	2.03	31.75	486.4	3.91	16.36
						0.2	CS	1.50	25.53	523.1	3.47	15.63	1975	1.71	28.82	471.8	3.76	16.99
							HT	1.44	27.78	392.8	3.85	20.13	HOT ST	1.44	27.20	449.9	3.72	17.86
							HS	1.43	26.67	502.1	3.60	16.18						
46	M	72	BUIC	SPOR	350	40	CT	2.42	55.38	757.8	4.70	10.41	1972	1.82	35.05	774.0	4.00	10.64
						0.3	CS	1.26	16.37	788.8	3.35	10.85	1975	1.71	24.17	746.6	4.09	11.24
							HT	2.02	15.52	657.5	5.05	12.90	HOT ST	1.56	14.54	718.8	4.13	11.89
							HS	1.15	13.64	775.1	3.29	11.10						
47	M	72	BUIC	LIMI	455	120	CT	3.45	50.71	856.6	4.51	9.37	1972	2.68	36.36	837.9	3.69	9.83
						0.9	CS	1.97	23.18	820.7	2.93	10.28	1975	2.47	27.93	789.3	3.62	10.56
							HT	2.69	19.81	678.5	4.26	12.36	HOT ST	2.27	20.33	743.4	3.59	11.35
							HS	1.88	20.80	803.0	2.98	10.55						
48	M	72	CHEV	VEGA	140	30	CT	4.71	35.25	413.6	4.21	18.35	1972	3.37	24.84	424.9	3.34	18.71
						0.5	CS	2.13	15.27	435.3	2.52	19.05	1975	2.87	20.08	409.2	3.35	19.74
							HT	2.88	17.81	356.2	4.26	22.59	HOT ST	2.25	16.65	400.4	3.22	20.47
							HS	1.68	15.60	440.9	2.27	18.86						
49	M	72	CHEV	NOVA	250	50	CT	2.58	44.36	593.9	3.45	13.22	1972	1.68	31.91	609.4	2.87	13.35
						1.2	CS	0.85	20.47	623.7	2.35	13.49	1975	1.37	24.89	587.4	2.93	14.07
							HT	1.44	18.64	513.4	3.66	16.22	HOT ST	1.09	19.41	546.3	2.81	15.30
							HS	0.77	20.13	576.5	2.03	14.54						
50	M	72	CHEV	MALI	307	250	CT	5.71	47.71	600.5	4.58	12.80	1972	4.67	41.83	605.9	3.54	12.93
						1.1	CS	3.71	36.44	610.9	2.59	13.06	1975	3.91	35.39	585.6	3.57	13.58
							HT	2.95	24.09	526.1	4.68	15.49	HOT ST	3.28	27.49	561.5	3.64	14.43
							HS	3.59	30.61	594.0	2.69	13.59						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
51	M	72	CHEV	NOVA	350	70	CT	2 01	35 40	692 5	3 36	11 77	1972	1 26	29 21	677 4	2 23	12 21
						1 3	CS	0 56	23 52	663 4	1 23	12 64	1975	0 95	25 14	648 8	2 14	12 84
							HT	0 87	20 51	587 9	2 98	14 26	HOT ST	0 74	23 58	632 5	2 09	13 21
							HS	0 62	26 40	673 5	1 27	12 38						
52	M	72	CHEV	MALI	350	50	CT	2 53	47 28	648 1	3 58	12 15	1972	1 89	35 03	664 4	2 52	12 21
						0 5	CS	1 29	25 70	679 1	1 55	12 27	1975	1 54	28 41	646 3	2 55	12 76
							HT	1 26	19 35	581 7	3 68	14 41	HOT ST	1 23	19 59	621 0	2 55	13 54
							HS	1 19	19 81	657 1	1 51	12 83						
53	M	72	CHEV	SFOR	350	120	CT	6 75	120 08	785 0	4 62	8 92	1972	4 70	89 03	794 9	3 95	9 35
						3 4	CS	2 82	60 52	804 0	3 34	9 78	1975	3 62	65 79	780 5	4 05	9 92
							HT	2 80	34 91	732 0	5 00	11 16	HOT ST	2 94	45 97	756 6	3 75	10 59
							HS	3 08	56 12	779 2	2 61	10 12						
54	M	72	CHEV	CAPR	400	80	CT	3 41	29 94	662 2	3 79	12 33	1972	2 28	20 33	726 4	2 88	11 60
						2 1	CS	1 25	11 49	785 3	2 05	11 00	1975	1 82	17 22	718 7	2 87	11 81
							HT	1 71	18 57	633 9	3 73	13 28	HOT ST	1 49	13 95	698 1	2 82	12 25
							HS	1 28	9 71	757 0	1 98	11 44						
55	M	72	DATS	PICK	97	150	CT	9 21	37 64	373 9	3 65	19 21	1972	9 62	26 59	370 0	3 48	20 07
						0 1	CS	9 99	16 45	366 4	3 32	20 94	1975	8 98	21 54	358 7	3 51	21 09
							HT	6 88	19 14	332 6	3 78	23 07	HOT ST	8 38	16 71	349 9	3 68	22 04
							HS	9 75	14 48	365 8	3 58	21 16						
56	M	72	DODG	TRAD	318	790	CT	12 30	51 60	543 5	2 97	13 38	1972	11 73	51 06	641 8	2 28	11 69
						1 8	CS	11 20	50 57	732 [illegible]	1 65	10 48	1975	10 82	47 87	625 7	2 27	12 08
							HT	8 96	39 90	484 2	2 92	15 43	HOT ST	8 02	43 54	614 7	2 26	12 53
							HS	7 16	46 87	734 5	1 64	10 69						
57	M	72	DODG	SWIN	318	100	CT	3 29	57 14	526 5	4 25	14 17	1972	2 83	54 68	542 9	2 85	13 92
						1 8	CS	2 41	52 42	557 9	1 55	13 70	1975	2 76	53 05	521 7	2 72	14 46
							HT	3 03	51 16	449 0	3 81	16 47	HOT ST	2 79	58 95	494 0	2 61	14 91
							HS	2 57	66 10	535 3	1 50	13 72						
58	M	72	FORD	PINT	122	240	CT	4 23	97 63	345 4	4 51	17 33	1972	3 26	81 44	310 8	3 17	19 77
						2 6	CS	2 38	66 59	279 0	1 91	22 70	1975	2 65	69 77	296 5	3 04	21 42
							HT	1 98	54 84	293 1	4 02	23 03	HOT ST	1 92	56 70	282 7	2 91	23 50
							HS	1 86	58 41	273 1	1 88	23 95						
59	M	72	FORD	MAVE	302	105	CT	11 30	40 57	585 0	4 17	12 97	1972	6 58	31 42	592 9	2 97	13 39
						0 1	CS	2 25	23 01	600 1	1 87	13 80	1975	4 42	24 11	571 1	2 98	14 25
							HT	3 37	13 80	505 0	4 18	15 57	HOT ST	2 75	17 71	560 1	3 00	14 88
							HS	2 17	21 29	610 7	1 91	13 64						
60	M	72	FORD	GRAN	351	120	CT	3 91	28 16	630 6	7 29	12 92	1972	3 19	27 65	642 1	5 46	12 76
						1 2	CS	2 54	27 19	652 6	3 79	12 62	1975	2 98	24 79	619 7	5 20	13 29
							HT	3 11	17 66	548 5	6 61	15 15	HOT ST	2 69	18 96	606 1	5 03	13 78
							HS	2 30	20 15	659 1	3 58	12 72						

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APPENDIX C

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ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
61	M	72	FORD	TORI	351	70 0.1	CT	4.25	50.41	653.0	4.77	11.91	1972	2.97	41.17	698.5	3.69	11.49
							CS	1.79	32.69	740.4	2.70	11.13	1975	2.70	34.48	676.7	3.80	12.01
							HT	3.27	25.89	572.8	5.18	14.23	HOT ST	2.43	25.79	649.3	3.86	12.73
							HS	1.65	25.70	719.6	2.65	11.60						
62	M	72	FORD	LTD	400	150 2.2	CT	7.35	79.13	701.5	7.27	10.46	1972	4.83	76.35	696.1	4.73	10.68
							CS	2.51	73.80	691.1	2.40	10.89	1975	4.80	65.22	666.2	4.67	11.33
							HT	7.23	38.35	592.0	7.05	13.15	HOT ST	4.59	49.49	643.1	4.71	12.07
							HS	2.16	59.71	690.1	2.55	11.23						
63	M	72	FORD	COUN	429	100 2.4	CT	7.51	127.15	680.3	4.60	9.82	1972	5.37	99.38	709.9	4.01	10.05
							CS	3.40	73.89	737.2	3.46	10.27	1975	4.16	75.83	702.3	4.19	10.64
							HT	3.10	40.84	652.1	5.26	12.23	HOT ST	2.91	45.65	691.4	4.22	11.49
							HS	2.75	50.07	727.5	3.26	10.90						
64	M	72	LINC	CONT	460	500 5.0	CT	4.50	89.86	820.4	6.86	9.10	1972	4.13	93.48	770.3	6.54	9.54
							CS	3.80	96.81	724.4	6.25	9.99	1975	3.75	83.13	732.6	6.72	10.15
							HT	3.09	51.92	682.2	7.53	11.48	HOT ST	3.32	69.82	693.3	6.82	10.91
							HS	3.54	86.25	703.6	6.17	10.44						
65	M	72	MERC	STA	400	50 0.4	CT	12.39	76.67	830.8	3.76	8.96	1972	6.57	57.08	941.5	3.36	8.44
							CS	1.23	39.09	1043.2	2.99	8.01	1975	3.82	46.09	928.7	3.53	8.76
							HT	2.32	36.40	783.8	4.38	10.47	HOT ST	1.65	37.76	907.3	3.63	9.14
							HS	1.04	39.00	1020.6	2.95	8.18						
66	M	72	OLDS	CUTL	350	180 0.9	CT	3.06	32.46	662.7	4.60	12.27	1972	2.58	24.57	658.7	3.65	12.59
							CS	2.14	17.33	654.9	2.76	12.89	1975	2.38	18.81	631.0	3.55	13.29
							HT	2.30	11.33	561.5	4.26	15.14	HOT ST	2.14	13.23	604.8	3.46	14.04
							HS	1.98	14.96	644.6	2.72	13.17						
67	M	72	OLDS	DELT	455	360 0.3	CT	2.87	32.58	754.0	7.57	10.90	1972	2.49	25.73	756.0	5.48	11.04
							CS	2.14	19.45	758.0	3.55	11.16	1975	2.55	22.57	725.5	5.19	11.54
							HT	3.09	20.97	642.2	6.52	12.96	HOT ST	2.67	24.61	696.3	4.83	11.94
							HS	2.28	27.94	746.1	3.28	11.14						
68	M	72	OPEL	GT	116	300 5.8	CT	3.84	53.23	306.7	5.07	22.06	1972	4.53	51.94	304.4	4.27	22.17
							CS	5.16	50.77	302.3	3.53	22.28	1975	4.58	45.73	293.6	4.35	23.36
							HT	4.05	30.47	267.1	5.38	27.08	HOT ST	4.56	39.93	283.8	4.40	24.60
							HS	5.02	48.62	299.0	3.50	22.69						
69	M	72	PLYM	DUST	225	50 0.2	CT	2.70	68.33	473.9	4.14	15.05	1972	1.96	61.31	488.3	2.95	15.03
							CS	1.29	54.86	501.5	1.85	15.00	1975	1.64	53.34	478.3	2.81	15.65
							HT	1.50	39.14	437.0	3.64	17.64	HOT ST	1.30	45.91	472.2	2.61	16.19
							HS	1.11	52.12	504.4	1.65	15.05						
70	M	72	PLYM	SATE	318	80 2.9	CT	4.37	68.56	503.8	5.42	14.20	1972	4.00	71.03	505.3	3.94	14.10
							CS	3.65	73.29	506.7	2.58	14.02	1975	3.73	65.20	489.0	4.00	14.72
							HT	3.40	47.19	443.9	5.65	16.79	HOT ST	2.83	47.54	354.8	3.43	20.25
							HS	2.31	47.85	273.1	1.38	24.97						

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LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
71	M	72	PONT	VENT	350	340	CT	5.11	71.31	598.6	4.02	12.22	1972	4.30	70.36	609.9	2.82	12.09
						4.8	CS	3.60	69.50	620.3	1.71	11.98	1975	3.81	60.83	592.8	2.76	11.67
							HT	3.24	36.35	536.1	2.81	14.71	HOT ST	3.23	46.69	567.8	2.69	13.63
							HS	3.21	56.19	596.9	1.68	12.77						
72	M	72	PONT	GRAN	455	60	CT	3.45	44.50	799.0	4.75	10.09	1972	2.85	40.36	829.9	3.31	9.84
						0.6	CS	2.30	38.55	858.3	1.99	9.62	1975	2.68	34.23	799.4	3.31	10.30
							HT	2.81	22.03	687.3	4.74	12.15	HOT ST	2.42	24.72	764.2	3.31	10.95
							HS	2.06	27.20	834.9	2.01	10.04						
73	M	72	TOYO	CORO	97	320	CT	5.04	35.70	361.[illegible]	5.57	20.19	1972	4.56	36.58	354.2	4.12	20.84
						3.2	CS	4.12	37.39	347.8	3.36	21.16	1975	4.04	33.06	337.3	4.15	21.08
							HT	3.15	22.79	299.2	4.60	25.73	HOT ST	3.44	29.75	319.5	3.49	23.54
							HS	3.70	36.14	338.1	2.49	21.84						
74	M	72	VOLK	BEET	97	90	CT	4.00	50.42	294.3	4.01	22.99	1972	3.83	52.19	307.7	3.07	22.09
						0.8	CS	3.66	53.61	320.0	2.21	21.33	1975	3.44	48.36	302.9	2.94	22.78
							HT	2.58	36.40	276.6	3.52	25.96	HOT ST	2.64	44.15	296.7	2.84	23.71
							HS	2.69	51.27	315.1	2.29	21.97						
75	M	72	VOLK	BEET	97	230	CT	5.36	44.92	298.1	4.49	23.00	1972	5.94	46.56	307.8	3.59	22.21
						0.6	CS	6.47	48.07	316.3	2.76	21.53	1975	5.75	43.35	300.4	3.42	22.95
							HT	4.68	33.15	271.0	3.88	26.23	HOT ST	5.67	39.45	291.3	3.16	23.91
							HS	6.56	45.23	309.5	2.50	22.12						
76		71	AMER	HORN	232	150	CT	4.34	54.80	439.1	4.04	16.47	1972	3.33	55.63	424.1	2.71	17.01
						4.2	CS	2.40	56.39	410.3	1.18	17.52	1975	2.87	50.20	410.2	2.68	17.82
							HT	2.66	34.90	387.9	3.94	19.68	HOT ST	2.43	43.15	400.6	2.72	18.65
							HS	2.22	50.73	41[illegible]	1.60	17.79						
77		71	BUIC	SKYL	250	1000	CT	10.27	78.56	479.1	2.32	13.98	1972	13.00	44.40	510.2	2.06	14.29
						0.1	CS	15.66	13.03	538.7	1.82	14.58	1975	12.36	24.04	500.0	2.05	15.30
							HT	7.63	11.30	441.7	2.23	18.35	HOT ST	11.01	10.86	467.1	1.75	17.10
							HS	14.11	10.47	490.4	1.65	16.09						
78		71	BUIC	ELEC	455	400	CT	5.91	71.63	750.0	5.65	10.07	1972	5.67	65.10	726.2	3.96	10.49
						1.9	CS	5.45	59.10	704.1	2.40	10.90	1975	5.16	53.53	683.0	3.70	11.33
							HT	4.05	29.23	591.5	4.69	13.65	HOT ST	4.30	45.67	634.4	3.30	12.31
							HS	5.49	60.76	673.8	2.03	11.29						
79		71	CADI	DEVI	472	30	CT	1.63	37.53	947.0	7.26	8.78	1972	1.33	23.04	940.0	6.00	9.06
						0.2	CS	1.06	9.74	933.5	4.34	9.32	1975	1.29	15.68	901.2	6.10	9.55
							HT	1.48	10.54	804.8	7.64	10.75	HOT ST	1.23	12.30	860.8	5.97	10.04
							HS	0.99	13.92	912.3	4.45	9.47						
80		71	CHEV	VEGA	140	15	CT	2.84	18.68	370.7	3.38	21.71	1972	1.86	15.38	407.9	2.43	20.28
						0.1	CS	0.95	12.34	442.0	1.55	19.17	1975	1.38	12.44	401.4	2.32	20.87
							HT	1.08	7.93	347.2	2.98	24.46	HOT ST	1.01	11.39	392.6	2.31	21.46
							HS	0.95	14.57	4[illegible]4	1.89	19.29						

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APPENDIX C

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LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
81		71	CHEV	CAMA	307	190	CT	3.85	15.00	608.5	3.89	13.78	1972	3.23	9.67	621.4	2.93	13.73
						0.3	CS	2.67	4.78	633.7	2.04	13.68	1975	2.85	7.78	599.0	3.15	14.32
							HT	2.45	8.07	526.4	4.71	16.24	HOT ST	2.48	7.43	569.5	4.13	15.07
							HS	2.50	6.85	609.2	3.61	14.14						
82		71	CHEV	IMPA	350	100	CT	2.76	47.25	610.2	3.77	12.81	1972	2.45	32.86	600.2	2.98	13.46
						0.6	CS	2.17	19.65	591.1	2.25	14.12	1975	2.19	24.68	584.8	2.94	14.08
							HT	1.77	17.24	553.6	3.63	15.14	HOT ST	2.09	21.41	585.4	2.87	14.19
							HS	2.37	25.25	614.7	2.17	13.41						
83		71	CHEV	NOVA	350	101	CT	3.69	47.34	553.8	2.41	13.88	1972	3.54	47.72	539.1	1.83	14.20
						1.8	CS	3.40	48.06	525.6	1.30	14.51	1975	3.23	42.45	521.0	1.73	14.85
							HT	2.54	28.05	487.4	2.06	16.45	HOT ST	2.93	35.60	518.3	1.68	15.22
							HS	3.28	42.53	546.6	1.32	14.23						
84		71	CHEV	IMPA	350	775	CT	5.66	111.95	721.7	2.87	9.70	1972	4.53	57.59	715.7	2.50	10.82
						0.2	CS	3.49	7.67	710.2	2.16	12.11	1975	3.76	29.11	698.7	2.53	11.74
							HT	2.85	7.57	659.1	2.98	13.05	HOT ST	2.80	8.16	670.9	2.53	12.82
							HS	2.76	8.70	681.5	2.12	12.61						
85		71	CHEV	KING	400	820	CT	6.86	138.57	657.3	3.87	9.90	1972	4.66	75.27	686.8	3.56	10.83
						0.2	CS	2.65	17.16	713.9	3.20	11.85	1975	3.48	43.43	672.5	3.88	11.81
							HT	2.53	21.86	605.0	5.02	13.72	HOT ST	2.47	19.66	648.0	4.00	12.93
							HS	2.40	17.64	687.1	3.05	12.28						
86		71	CHRY	NEWP	440	175	CT	7.42	109.07	644.3	5.46	10.50	1972	5.42	97.77	620.5	4.89	11.22
						3.8	CS	3.58	87.40	598.6	4.37	11.88	1975	4.28	82.55	617.2	5.07	11.68
							HT	3.23	53.30	632.1	6.10	12.23	HOT ST	3.68	67.46	702.9	5.26	10.82
							HS	4.09	80.47	767.9	4.49	9.79						
87		71	DATS	1200	71	250	CT	3.30	18.37	268.6	3.69	28.84	1972	3.39	21.60	261.8	3.11	28.97
						1.6	CS	3.47	24.57	255.5	2.57	29.09	1975	3.28	21.24	251.5	3.06	30.07
							HT	2.91	17.04	230.9	3.53	33.26	HOT ST	3.11	21.61	239.0	2.95	31.39
							HS	3.31	25.80	246.1	2.41	29.85						
88		71	DODG	DART	318	200	CT	4.38	72.08	498.0	4.32	14.20	1972	4.30	81.67	485.0	2.90	14.16
						4.1	CS	4.23	90.48	473.0	1.59	14.12	1975	3.96	73.98	467.3	2.70	14.89
							HT	3.12	43.89	433.1	3.59	17.33	HOT ST	3.60	65.14	451.8	2.48	15.70
							HS	4.04	84.65	468.8	1.46	14.45						
89		71	FORD	PINT	122	250	CT	6.72	50.77	291.2	4.32	22.63	1972	6.76	56.38	287.2	3.71	22.35
						3.0	CS	6.79	61.53	283.6	3.11	22.10	1975	5.96	50.41	281.0	3.82	23.42
							HT	3.80	28.89	268.4	4.74	27.25	HOT ST	5.06	45.10	275.8	3.87	24.48
							HS	6.21	59.99	282.6	3.06	22.39						
90		71	FORD	MAVE	200	114	CT	2.32	31.85	511.5	4.50	15.61	1972	1.97	25.35	500.8	3.51	16.24
						1.5	CS	1.65	19.39	490.9	2.59	16.86	1975	1.86	20.50	481.0	3.47	17.10
							HT	1.92	14.04	439.0	4.37	19.00	HOT ST	1.98	18.15	459.2	3.54	17.97
							HS	2.04	21.92	477.6	2.77	17.12						

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LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
91		71	FORD	MUST	302	145	CT	4.66	78.52	525.1	6.05	13.38	1972	3.89	65.67	498.3	4.35	14.46
						1.6	CS	3.18	53.87	473.4	2.79	15.63	1975	3.46	51.68	487.5	4.35	15.32
							HT	3.09	27.24	485.9	6.05	16.49	HOT ST	3.13	35.85	510.2	4.58	15.40
							HS	3.17	43.75	532.6	3.24	14.52						
92		71	FORD	MUST	351	800	CT	10.12	225.56	507.3	3.78	9.93	1972	8.94	255.58	499.9	2.34	9.55
						8.9	CS	7.86	283.14	493.1	1.01	9.22	1975	7.69	241.24	485.2	2.13	9.99
							HT	5.54	173.03	453.4	3.01	11.95	HOT ST	5.90	213.98	473.0	2.07	10.72
							HS	6.23	251.59	491.0	1.11	9.80						
93		71	FORD	LTD	429	360	CT	8.28	238.67	589.6	1.42	8.96	1972	6.28	163.39	620.1	2.75	9.90
						7.0	CS	4.45	94.28	647.8	3.96	10.96	1975	5.30	113.20	610.7	4.12	11.02
							HT	4.69	54.68	555.5	6.46	13.53	HOT ST	5.24	72.20	593.3	5.07	12.27
							HS	5.75	88.28	627.9	3.79	11.31						
94		71	MERC	MARO	429	40	CT	3.91	92.88	783.4	4.99	9.43	1972	2.87	69.10	809.3	4.27	9.58
						0.7	CS	1.91	47.27	833.0	3.61	9.72	1975	2.36	51.59	785.5	4.37	10.16
							HT	2.04	28.72	696.2	5.38	11.87	HOT ST	1.83	31.45	768.7	4.48	10.78
							HS	1.64	33.95	835.3	3.65	9.93						
95		71	OLDS	98	455	50	CT	3.31	50.81	800.5	1.92	9.97	1972	2.24	34.33	824.7	1.62	10.02
						0.2	CS	1.25	19.20	847.0	1.36	10.08	1975	1.86	23.63	793.7	1.68	10.61
							HT	1.92	11.58	686.7	2.11	12.49	HOT ST	1.44	13.41	765.1	1.74	11.23
							HS	1.01	15.09	837.0	1.40	10.28						
96		71	OLDS	NINE	455	100	CT	3.53	40.15	753.7	5.72	10.72	1972	2.79	31.43	791.2	4.07	10.45
						0.6	CS	2.11	23.43	825.6	2.55	10.22	1975	2.34	24.26	764.2	3.81	10.96
							HT	1.87	13.84	655.0	4.79	13.01	HOT ST	1.90	22.72	728.2	3.51	11.53
							HS	1.93	30.86	795.5	2.33	10.44						
97		71	PLYM	VALI	225	30	CT	4.69	120.66	369.6	2.51	15.47	1972	3.60	92.54	366.5	2.02	16.96
						0.7	CS	2.60	66.73	363.8	1.58	18.62	1975	2.98	74.30	360.0	2.18	18.26
							HT	2.41	53.81	345.6	3.07	20.28	HOT ST	2.38	60.04	358.7	2.19	19.28
							HS	2.36	65.76	370.7	1.38	18.44						
98		71	PLYM	DUST	318	210	CT	4.11	55.65	467.8	5.09	15.62	1972	3.65	58.45	470.9	3.44	15.46
						4.2	CS	3.23	61.03	473.7	1.93	15.31	1975	3.38	51.98	455.3	3.36	16.21
							HT	3.13	31.92	410.6	4.78	18.86	HOT ST.	3.09	44.04	440.1	3.29	17.10
							HS	3.06	55.17	467.7	1.92	15.75						
99		71	PONT	FIRE	350	210	CT	4.75	48.15	607.9	4.18	12.71	1972	4.13	41.14	610.0	3.20	12.91
						0.4	CS	3.57	34.70	611.9	2.30	13.10	1975	3.79	34.83	587.8	3.21	13.56
							HT	3.48	25.03	526.6	4.22	15.39	HOT ST	3.63	32.94	552.1	3.23	14.43
							HS	3.77	40.19	575.5	2.33	13.65						
100		71	PONT	CATA	400	600	CT	8.53	123.10	973.6	2.88	7.44	1972	7.19	93.57	941.3	2.68	7.99
						0.2	CS	5.97	66.47	911.7	2.19	8.58	1975	6.26	73.07	885.7	2.69	8.70
							HT	5.10	47.96	769.8	2.94	10.31	HOT ST	5.25	59.95	803.5	2.54	9.71
							HS	5.39	70.96	834.1	2.18	9.22						

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101		71	TOYO	CORO	71	105	CT	2.31	20.26	308.6	2.97	25.53	1972	2.11	18.92	325.1	2.66	24.56
						0.8	CS	1.92	17.68	340.2	2.37	23.71	1975	1.97	17.56	318.7	2.64	25.19
							HT	1.81	15.28	285.2	2.91	28.19	HOT ST	1.77	16.20	314.1	2.59	25.72
							HS	1.74	17.06	340.6	2.28	23.81						
102		71	VOLK	SUPE	97	10	CT	5.31	72.57	274.5	2.56	21.90	1972	5.15	76.83	291.4	1.99	20.72
						1.1	CS	5.01	80.74	307.0	1.47	19.74	1975	4.74	71.28	287.3	1.92	21.43
							HT	3.79	52.22	259.1	2.29	25.14	HOT ST.	4.43	66.22	289.6	1.95	21.77
							HS	5.02	79.09	317.6	1.64	19.39						
103		70	BUIC	ESTA	455	275	CT	5.27	76.52	684.5	8.06	10.81	1972	5.21	74.34	704.2	6.63	10.60
						3.2	CS	5.16	72.34	722.3	5.31	10.42	1975	4.99	64.94	684.3	6.82	11.07
							HT	4.47	42.08	611.5	8.77	12.83	HOT ST.	4.66	54.15	657.9	6.95	11.72
							HS	4.83	65.24	700.6	5.28	10.85						
104		70	CHEV	CAMA	250	20	CT	4.58	61.28	466.5	2.47	15.38	1972	3.28	40.94	488.9	2.15	15.75
						0.2	CS	2.09	22.27	509.5	1.85	16.11	1975	2.75	30.07	477.2	2.24	16.65
							HT	2.62	21.44	423.8	2.81	19.06	HOT ST	2.51	22.27	464.0	2.39	17.51
							HS	2.41	23.04	500.9	2.02	16.30						
105		70	CHEV	CHEV	307	950	CT	5.53	73.25	346.8	4.54	18.52	1972	6.70	76.72	340.0	3.55	18.43
						7.0	CS	7.79	79.90	333.7	2.65	18.34	1975	6.57	68.40	324.4	3.55	19.61
							HT	5.04	42.77	289.5	4.54	23.82	HOT ST	6.20	61.66	303.8	3.56	21.12
							HS	7.26	79.01	317.0	2.65	19.13						
106		70	CHEV	IMPA	350	1200	CT	28.60	55.81	557.1	4.26	12.06	1972	28.95	52.05	569.0	3.49	11.95
						1.2	CS	29.28	48.60	579.7	2.78	11.85	1975	27.74	44.21	555.2	3.56	12.46
							HT	24.17	27.06	506.7	4.52	14.18	HOT ST	26.53	36.70	534.6	3.68	13.12
							HS	28.70	45.56	560.2	2.90	12.28						
107		70	CHEV	EL C	350	180	CT	4.42	122.83	586.5	1.88	11.19	1972	4.31	125.65	500.5	1.52	11.22
						5.8	CS	4.20	128.24	575.1	1.19	11.24	1975	3.91	111.92	560.2	1.57	11.86
							HT	2.97	72.52	512.0	2.06	13.97	HOT ST	3.58	104.91	522.7	1.58	12.70
							HS	4.14	134.66	532.1	1.14	11.73						
108		70	CHEV	EL C	350	350	CT	3.20	27.65	556.4	6.08	14.55	1972	3.54	51.19	524.9	4.07	14.40
						5.2	CS	3.84	72.80	496.0	2.21	14.26	1975	3.40	52.52	492.2	3.94	15.16
							HT	2.70	32.53	436.5	5.62	17.90	HOT ST	3.20	53.51	453.1	3.90	16.22
							HS	3.67	72.76	468.4	2.31	14.94						
109		70	CHEV	MONT	400	85	CT	12.23	72.11	550.1	3.06	12.64	1972	11.59	52.81	576.8	2.51	12.75
						0.9	CS	11.01	35.09	601.3	2.01	12.84	1975	10.79	40.21	566.4	2.54	13.38
							HT	9.27	25.92	511.8	3.14	15.26	HOT ST	10.39	29.57	546.5	2.55	14.19
							HS	11.41	32.92	578.3	2.00	13.33						
110		70	DODG	CHAR	383	125	CT	3.97	48.48	543.7	5.61	14.04	1972	3.64	45.83	536.3	4.38	14.32
						2.0	CS	3.34	43.40	529.5	3.26	14.60	1975	3.35	38.99	520.2	4.34	14.99
							HT	2.92	23.42	484.7	5.48	16.73	HOT ST	3.05	31.62	502.9	4.40	15.79
							HS	3.18	39.14	519.6	3.43	15.02						

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111		70	FORD	MAVE	200	210	CT	8 46	82 18	309 [illegible]	2 75	19 08	1972	7 51	95 10	323 1	2 08	17 89
						0 9	CS	6 64	106 97	335 8	1 46	16 91	1975	6 60	91 20	315 0	1 98	18 52
							HT	5 13	67 88	279 [illegible]	2 38	22 05	HOT ST	6 02	87 86	314 4	1 90	19 83
							HS	6 84	106 20	346 3	1 46	15 60						
112		70	FORD	TORI	302	230	CT	7 81	170 80	510 6	4 28	11 05	1972	5 64	115 40	526 6	3 33	12 23
						0 8	CS	3 64	64 54	541 3	2 45	13 57	1975	4 73	81 62	520 9	3 83	13 37
							HT	4 49	46 98	489 6	6 14	15 37	HOT ST	3 00	48 54	516 5	4 26	14 68
							HS	3 17	49 97	541 1	2 53	14 10						
113		70	FORD	GALA	351	150	CT	5 86	152 21	530 6	2 79	11 26	1972	4 44	102 89	566 7	3 73	11 96
						2 2	CS	3 14	57 61	599 8	4 60	12 68	1975	3 57	70 05	560 3	4 73	13 02
							HT	2 68	31 84	507 1	6 44	15 70	HOT ST	2 82	41 15	544 1	5 32	14 37
							HS	2 95	49 70	578 1	4 29	13 34						
114		70	FORD	TORI	351	104	CT	4 36	62 18	588 1	5 56	12 69	1972	3 40	46 77	597 7	3 81	13 02
						2 2	CS	2 51	32 63	606 1	2 21	13 34	1975	2 87	35 55	576 6	3 56	13 84
							HT	2 42	21 03	511 1	4 65	16 09	HOT ST	2 35	23 38	558 0	3 33	14 74
							HS	2 29	25 54	601 1	2 12	13 69						
115		70	FORD	COUN	390	170	CT	5 84	107 60	598 1	6 07	11 30	1972	6 22	126 63	774 9	5 98	8 94
						1 2	CS	6 58	144 09	937 3	5 89	7 50	1975	5 85	112 22	755 0	6 07	9 35
							HT	4 45	54 81	525 0	6 41	14 20	HOT ST	4 12	72 00	552 0	4 83	13 09
							HS	3 82	87 78	576 8	3 38	12 22						
116		70	MERC	MARQ	429	225	CT	4 19	73 93	826 7	6 39	9 29	1972	3 29	75 20	1009 2	5 14	7 80
						1 3	CS	2 46	76 36	1176 7	4 00	6 81	1975	2 81	68 28	989 2	4 97	8 03
							HT	2 44	48 58	753 4	5 77	10 60	HOT ST	2 39	61 28	843 4	4 72	9 37
							HS	2 35	72 94	926 0	3 75	8 47						
117		70	OLDS	CUTL	350	150	CT	5 91	56 61	548 3	4 20	13 53	1972	4 83	58 57	556 6	3 33	13 37
						2 4	CS	3 84	60 37	564 1	2 54	13 23	1975	4 21	53 11	541 9	3 27	13 90
							HT	3 63	36 61	494 6	3 98	15 75	HOT ST	3 51	46 64	531 3	3 14	14 42
							HS	3 41	55 85	565 0	2 36	13 38						
118		70	OLDS	442	455	575	CT	4 80	59 65	689 1	2 46	11 13	1972	4 39	48 50	699 6	1 64	11 24
						0 2	CS	4 01	38 27	709 3	0 89	11 35	1975	4 30	37 20	681 2	1 57	11 79
							HT	4 48	18 23	621 8	2 21	13 36	HOT ST	3 97	25 34	664 2	1 48	12 39
							HS	3 50	31 87	703 1	0 81	11 62						
119		70	PLYM	SATE	318	20	CT	4 55	61 62	578 3	4 9[illegible]	12 88	1972	3 90	39 69	603 6	4 54	13 09
						0 2	CS	3 31	19 55	626 8	4 15	13 29	1975	3 33	27 64	593 1	4 61	13 72
							HT	2 46	17 45	539 9	5 20	15 41	HOT ST	2 24	26 15	622 1	3 78	13 25
							HS	2 04	34 13	697 6	2 49	11 72						
120		70	PLYM	BARR	318	190	CT	6 29	96 32	500 6	4 67	13 21	1972	4 92	77 68	509 0	4 75	13 75
						1 8	CS	3 67	60 56	514 9	4 83	14 20	1975	4 00	60 94	501 7	5 15	14 55
							HT	2 91	34 96	477 3	6 11	16 40	HOT ST	3 17	41 24	504 6	5 45	15 32
							HS	3 41	47 00	529 [illegible]	4 84	14 45						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
121		70	PONT	LEMA	350	280	CT	80.82	490.98	360.8	0.17	6.39	1972	44.84	320.55	423.1	0.57	8.30
						0.3	CS	11.81	164.07	480.3	0.95	11.45	1975	26.62	262.78	421.6	0.69	9.66
							HT	14.04	279.25	355.4	0.59	10.59	HOT ST	9.36	172.50	430.2	0.98	12.15
							HS	5.06	74.50	498.8	1.34	14.05						
122		70	PONT	GTO	400	68	CT	5.60	56.06	665.1	5.63	11.51	1972	4.30	30.17	670.2	4.61	12.14
						0.1	CS	3.10	6.39	674.7	3.67	12.78	1975	3.62	17.37	648.1	4.83	12.92
							HT	3.12	10.25	584.3	6.45	14.55	HOT ST	2.97	7.92	619.2	5.14	13.85
							HS	2.83	5.78	651.2	3.94	13.27						
123		70	TOYO	MARK	112	85	CT	3.31	35.46	320.5	3.26	22.96	1972	3.05	37.86	335.4	2.81	21.95
						0.9	CS	2.82	40.04	349.1	2.39	21.09	1975	2.84	32.84	329.7	2.75	22.75
							HT	2.51	17.11	299.7	3.05	26.54	HOT ST	2.41	22.15	327.7	2.71	23.99
							HS	2.31	26.77	353.5	2.41	22.04						
124		70	VOLK	BEET	97	1000	CT	4.28	31.09	305.7	3.19	24.11	1972	4.41	28.83	338.7	2.57	22.31
						2.6	CS	4.52	26.76	369.0	2.00	20.87	1975	4.22	26.57	332.2	2.42	22.92
							HT	3.61	22.82	281.7	2.64	26.99	HOT ST	3.95	24.73	322.1	2.25	23.77
							HS	4.26	26.48	359.2	1.88	21.43						
125		69	AMER	AMBA	343	160	CT	9.47	163.59	453.2	2.27	11.99	1972	7.40	129.10	469.3	2.08	12.76
						2.5	CS	5.49	97.43	484.0	1.90	13.56	1975	6.32	105.76	464.8	2.36	13.64
							HT	5.53	78.05	436.9	3.31	15.38	HOT ST	5.29	86.61	457.3	2.52	14.55
							HS	5.06	94.47	475.9	1.80	13.86						
126		69	BUIC	SKYL	350	100	CT	4.21	96.58	534.3	4.48	12.69	1972	3.58	94.49	525.5	3.34	12.96
						4.0	CS	3.01	92.58	517.3	2.29	13.21	1975	3.03	80.93	509.2	3.46	13.74
							HT	2.19	46.88	474.7	4.94	15.99	HOT ST	2.51	68.29	506.9	3.63	14.27
							HS	2.81	87.95	536.5	2.42	12.99						
127		69	CHEV	NOMA	307	370	CT	4.55	44.16	429.9	4.52	17.28	1972	5.07	55.68	405.5	3.51	17.44
						4.7	CS	5.55	66.26	383.0	2.58	17.59	1975	4.99	53.46	397.1	3.81	17.87
							HT	4.24	36.02	399.3	5.64	18.92	HOT ST	4.80	47.88	402.4	4.78	18.01
							HS	5.31	58.77	405.2	3.99	17.26						
128		69	CHEV	CAMA	307	525	CT	10.72	149.04	416.8	2.86	12.96	1972	8.66	145.35	408.9	2.18	13.35
						5.6	CS	6.78	141.97	401.7	1.54	13.74	1975	7.38	129.72	395.7	2.21	14.25
							HT	6.01	91.74	368.3	2.98	16.70	HOT ST	6.38	119.00	372.4	2.15	15.32
							HS	6.73	144.03	376.2	1.39	14.23						
129		69	CHEV	IMPA	327	240	CT	23.62	344.49	477.1	0.81	8.12	1972	15.35	248.83	500.3	1.11	9.44
						4.0	CS	7.76	161.00	521.7	1.38	11.11	1975	10.84	198.81	492.2	1.25	10.58
							HT	7.08	161.14	447.4	1.32	12.28	HOT ST	6.60	146.37	492.6	1.47	11.94
							HS	6.16	132.81	534.1	1.60	11.65						
130		69	CHEV	MALI	350	115	CT	5.27	86.60	530.3	5.02	13.00	1972	4.43	67.41	535.1	3.96	13.55
						2.6	CS	3.65	49.80	539.6	2.99	14.11	1975	3.86	50.91	519.0	4.07	14.53
							HT	3.21	26.11	471.1	5.42	17.00	HOT ST.	3.12	34.19	502.5	4.19	15.68
							HS	3.04	41.62	531.4	3.06	14.64						

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APPENDIX C

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LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
131		69	CHEV	IMPA	350	2000	CT	10.33	161.98	423.1	3.04	12.49	1972	6.96	115.58	421.2	2.12	14.21
						0.2	CS	3.87	72.97	419.1	1.28	16.26	1975	5.34	88.83	406.5	2.06	15.77
							HT	4.39	63.95	369.5	2.81	18.35	HOT ST	4.02	65.80	391.3	1.99	17.50
							HS	3.68	67.50	411.2	1.24	16.79						
132		69	CHEV	IMPA	327	380	CT	11.39	101.77	510.1	2.46	12.57	1972	9.43	95.77	500.2	2.39	13.04
						5.4	CS	7.63	90.27	491.2	2.31	13.51	1975	7.85	82.54	490.4	2.68	13.76
							HT	5.61	53.25	474.0	3.56	15.43	HOT ST	6.06	66.27	482.2	3.00	14.66
							HS	6.47	78.21	489.8	2.49	14.02						
133		69	CHRY	TOWN	383	650	CT	5.85	80.85	614.0	3.62	11.69	1972	4.94	73.15	609.6	3.10	11.99
						1.5	CS	4.09	66.09	605.6	2.63	12.29	1975	4.56	66.09	587.8	2.96	12.57
							HT	4.48	54.96	534.2	3.08	13.99	HOT ST	4.18	59.49	567.8	2.93	13.16
							HS	3.91	63.66	598.6	2.79	12.49						
134		69	DODG	DART	225	275	CT	5.25	92.11	336.9	2.63	17.82	1972	4.45	79.43	340.8	2.72	18.51
						1.0	CS	3.72	67.79	344.5	2.81	19.18	1975	3.86	64.29	335.9	2.96	19.76
							HT	3.09	36.60	318.9	3.52	22.99	HOT ST	3.47	52.59	325.8	3.07	21.17
							HS	3.82	67.26	332.1	2.66	19.73						
135		69	FORD	RANC	302	280	CT	4.19	56.81	525.1	4.81	14.15	1972	3.69	56.81	543.7	3.54	13.77
						2.8	CS	3.24	56.81	560.7	2.37	13.45	1975	3.32	49.33	533.0	3.46	14.30
							HT	2.82	29.39	486.0	4.54	16.41	HOT ST	2.93	43.33	533.3	3.38	14.54
							HS	3.04	56.13	576.8	2.32	13.16						
136		69	FORD	FAIR	302	275	CT	3.94	21.05	453.4	6.34	17.79	1972	3.63	29.07	444.7	4.75	17.69
						1.5	CS	3.36	36.43	436.6	3.30	17.60	1975	3.68	27.90	429.6	4.60	18.30
							HT	4.11	16.78	398.3	5.76	20.28	HOT ST	3.61	22.69	420.2	4.46	19.00
							HS	3.14	28.12	440.1	3.26	17.95						
137		69	FORD	MUST	351	300	CT	2.94	24.76	513.2	5.26	15.81	1972	3.32	51.67	471.2	3.91	15.77
						5.0	CS	3.67	76.38	432.7	2.66	15.73	1975	3.25	54.45	435.3	3.60	16.72
							HT	2.67	34.96	381.3	4.16	19.96	HOT ST	3.04	53.41	401.4	3.30	17.94
							HS	3.38	70.34	419.8	2.51	16.41						
138		69	FORD	MUST	351	135	CT	14.37	44.85	541.2	6.40	13.51	1972	15.26	50.99	526.7	4.96	13.55
						4.2	CS	16.07	56.63	513.1	3.63	13.59	1975	14.16	47.03	507.8	4.84	14.17
							HT	10.35	30.35	472.0	5.99	16.07	HOT ST	12.86	42.40	482.6	4.76	15.05
							HS	15.16	53.48	492.3	3.64	14.22						
139		69	FORD	COUN	390	525	CT	6.00	88.51	577.0	4.81	12.08	1972	5.20	76.12	569.1	4.73	12.59
						4.2	CS	4.47	64.74	561.8	4.34	13.10	1975	4.65	62.19	550.5	5.20	13.39
							HT	3.97	37.46	508.8	6.54	15.30	HOT ST	4.25	50.44	538.8	5.67	14.06
							HS	4.50	62.36	566.4	4.87	13.08						
140		69	MERC	MONT	351	250	CT	3.55	9.82	617.2	6.64	13.79	1972	3.34	7.08	635.3	6.68	13.51
						2.6	CS	3.16	4.56	652.0	6.72	13.27	1975	3.12	6.84	613.1	6.78	14.01
							HT	2.74	8.96	535.7	6.98	15.90	HOT ST	2.83	11.25	533.3	5.70	15.86
							HS	2.92	13.35	531.1	4.53	15.82						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS
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LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
141		69	OLDS	DELT	455	640	CT	5.05	79.23	627.2	7.02	11.57	1972	5.45	58.45	632.8	5.77	11.97
						0.2	CS	5.82	39.37	637.9	4.62	12.36	1975	5.25	46.31	610.5	5.49	12.68
							HT	4.32	34.75	545.6	5.99	14.46	HOT ST	5.07	37.01	588.9	5.16	13.39
							HS	5.77	39.09	628.7	4.39	12.53						
142		69	PLYM	BARR	318	200	CT	6.22	84.90	520.2	4.99	13.19	1972	5.04	81.76	520.9	4.44	13.35
						4.5	CS	3.95	78.87	521.5	3.94	13.50	1975	4.19	72.72	503.8	4.53	14.06
							HT	3.13	51.79	457.7	5.31	16.17	HOT ST	3.59	72.18	476.9	4.43	14.76
							HS	4.02	90.91	494.6	3.63	13.66						
143		69	PONT	TEMP	350	265	CT	5.22	83.33	515.7	4.17	13.39	1972	4.41	59.50	518.6	3.59	14.18
						2.6	CS	3.65	37.62	521.1	3.06	15.00	1975	3.84	43.06	505.1	3.77	15.18
							HT	3.14	23.08	466.4	4.84	17.32	HOT ST	3.31	24.46	496.4	3.95	16.28
							HS	3.46	25.72	523.9	3.13	15.43						
144		69	PONT	GRAN	400	45	CT	7.47	149.33	524.1	4.19	11.31	1972	5.50	96.16	540.5	3.85	12.52
						0.4	CS	3.70	47.35	555.2	3.54	13.84	1975	4.24	60.01	533.7	4.36	13.84
							HT	2.86	16.84	499.8	6.06	16.59	HOT ST	3.04	22.65	529.4	4.98	15.45
							HS	3.20	27.98	556.7	3.98	14.54						
145		69	VOLK	BEET	91	740	CT	4.13	64.73	265.9	1.90	23.32	1972	4.24	66.71	269.8	1.39	22.88
						1.0	CS	4.34	68.52	273.1	0.92	22.49	1975	3.95	62.45	262.3	1.27	23.80
							HT	3.07	49.13	238.5	1.48	27.28	HOT ST	3.74	55.64	260.3	1.17	24.69
							HS	4.35	61.62	280.1	0.80	22.71						
146		68	AMER	RAMB	232	115	CT	3.62	57.83	350.1	3.04	19.63	1972	2.77	34.97	360.6	3.05	20.93
						0.3	CS	1.99	13.98	370.2	3.06	22.28	1975	2.38	21.99	356.0	3.21	22.30
							HT	2.20	10.26	333.1	3.62	24.91	HOT ST	2.11	11.15	345.1	3.43	24.04
							HS	2.03	11.97	355.9	3.25	23.30						
147		68	BUIC	ELEC	430	101	CT	5.38	93.05	569.5	6.42	12.12	1972	4.77	66.73	577.9	4.85	12.72
						1.0	CS	4.20	42.56	585.6	3.42	13.33	1975	4.24	47.74	560.1	4.95	13.69
							HT	3.45	23.45	504.2	6.78	16.08	HOT ST	3.65	32.41	532.9	4.77	14.91
							HS	3.84	40.63	559.2	2.93	13.98						
148		68	CADI	COUP	472	90	CT	3.10	62.70	810.8	8.26	9.66	1972	2.53	48.72	769.5	7.76	10.40
						0.4	CS	2.01	35.87	731.6	7.30	11.18	1975	2.26	36.80	723.8	7.96	11.26
							HT	2.10	19.03	643.2	8.99	13.06	HOT ST	2.58	19.72	677.3	8.44	12.39
							HS	3.02	20.36	708.7	7.94	11.83						
149		68	CHEV	BISC	250	40	CT	3.06	38.60	484.2	4.33	16.01	1972	2.46	25.25	504.6	3.82	16.08
						0.1	CS	1.91	12.99	523.3	3.35	16.15	1975	2.26	20.10	491.9	3.86	16.73
							HT	2.35	19.73	437.8	4.49	18.64	HOT ST	2.05	15.17	458.7	3.86	18.16
							HS	1.77	10.97	477.9	3.28	17.73						
150		68	CHEV	IMPA	307	245	CT	11.53	126.11	466.8	3.62	12.66	1972	9.71	105.61	454.2	3.10	13.64
						3.2	CS	8.04	86.80	442.6	2.62	14.69	1975	8.36	87.64	445.5	3.29	14.56
							HT	6.57	60.23	435.1	4.30	16.13	HOT ST	7.28	71.73	427.4	3.47	15.76
							HS	7.93	82.28	420.4	2.70	15.44						

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151		68	CHEV	NOVA	327	1350	CT	9.13	106.01	358.3	2.57	16.03	1972	9.42	84.71	365.3	2.03	16.81
						3.0	CS	9.69	65.15	371.7	1.51	17.59	1975	8.65	67.97	354.8	2.05	18.15
							HT	6.31	44.67	319.7	2.63	21.66	HOT ST	7.84	55.52	318.6	1.65	20.61
							HS	9.24	65.49	317.5	0.74	19.74						
152		68	CHEV	CHEV	307	130	CT	4.32	36.72	506.0	4.84	15.38	1972	4.06	24.60	475.7	3.60	16.84
						0.2	CS	3.82	13.48	447.8	2.45	18.46	1975	3.74	16.69	455.3	3.47	18.00
							HT	3.15	7.70	431.3	4.38	19.58	HOT ST	3.50	8.53	439.5	3.22	19.14
							HS	3.83	9.29	446.9	2.16	18.74						
153		68	CHEV	MALI	307	450	CT	5.99	70.01	524.7	5.99	13.58	1972	5.52	48.29	506.0	5.30	14.81
						1.0	CS	5.08	28.36	488.8	4.65	16.16	1975	5.21	37.26	486.4	5.36	15.81
							HT	4.86	29.56	452.9	6.24	17.25	HOT ST	4.89	24.52	464.2	5.42	17.13
							HS	4.92	19.89	474.5	4.67	17.03						
154		68	DODG	CORO	383	300	CT	6.67	129.05	623.3	4.42	10.48	1972	6.49	118.17	616.3	3.53	10.79
						2.5	CS	6.32	108.19	609.7	2.71	11.10	1975	6.27	109.76	591.4	3.58	11.33
							HT	5.86	98.23	532.3	4.60	12.59	HOT ST	5.92	102.64	563.2	3.68	11.95
							HS	5.96	106.70	591.6	2.84	11.41						
155		68	FORD	MUST	200	845	CT	9.84	37.18	451.5	5.59	16.41	1972	8.57	29.88	436.3	4.82	17.39
						7.5	CS	7.41	23.18	422.4	4.11	18.41	1975	7.99	24.03	415.1	4.67	18.56
							HT	7.70	15.71	373.7	5.04	21.00	HOT ST	7.29	18.00	393.9	4.51	19.94
							HS	6.92	20.09	412.4	4.01	19.06						
156		68	FORD	MUST	289	1750	CT	8.16	84.79	458.3	3.44	14.38	1972	9.30	90.68	426.3	2.74	14.84
						9.6	CS	10.35	96.09	396.9	2.09	15.29	1975	9.38	82.57	404.8	2.78	15.73
							HT	8.46	55.05	379.5	3.59	18.01	HOT ST	10.26	70.88	373.9	2.81	17.15
							HS	11.91	85.42	368.8	2.09	16.42						
157		68	FORD	MUST	302	300	CT	8.52	121.77	413.0	2.47	14.06	1972	6.41	108.79	441.4	1.80	14.03
						5.0	CS	4.47	96.87	467.5	1.19	14.01	1975	5.18	90.53	438.1	1.87	14.88
							HT	4.02	54.86	401.0	2.72	17.78	HOT ST	4.17	77.74	425.8	1.89	15.82
							HS	4.31	98.75	448.7	1.14	14.38						
158		68	FORD	LTD	390	300	CT	4.20	55.97	560.0	4.52	13.43	1972	3.97	57.64	560.4	3.97	13.38
						4.2	CS	3.76	59.17	560.6	3.47	13.34	1975	3.75	53.03	545.0	4.07	13.87
							HT	3.38	39.09	503.7	4.87	15.42	HOT ST	3.54	49.84	525.4	4.14	14.44
							HS	3.70	59.70	545.3	3.46	13.64						
159		68	MERC	COUG	302	165	CT	5.55	51.04	534.0	5.55	14.05	1972	4.71	55.60	528.9	5.04	14.07
						1.3	CS	3.94	59.79	524.2	4.56	14.08	1975	4.34	50.89	508.1	5.35	14.75
							HT	4.20	33.76	458.0	6.70	16.93	HOT ST	3.91	43.46	486.8	5.63	15.65
							HS	3.64	52.36	513.2	4.66	14.63						
160		68	OLDS	CUTL	350	250	CT	8.34	91.37	564.3	4.97	12.09	1972	7.90	109.44	558.9	4.34	11.75
						0.6	CS	7.49	126.03	553.9	3.77	11.15	1975	7.31	103.82	541.7	4.47	12.19
							HT	6.19	70.80	501.4	5.45	14.04	HOT ST	6.58	96.02	511.0	4.51	13.00
							HS	6.94	119.18	519.9	3.66	12.18						

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LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
161		68	PLYM	VALI	318	150	CT	22.33	354.58	305.0	0.30	9.52	1972	26.16	369.09	287.2	0.21	9.34
						2.6	CS	29.68	382.42	270.9	0.12	9.19	1975	22.37	308.86	308.3	0.72	10.27
							HT	8.44	133.81	382.2	2.18	14.34	HOT ST	8.11	145.02	386.4	1.66	13.87
							HS	7.81	155.31	390.2	1.18	13.47						
162		68	PONT	CATA	400	130	CT	4.38	54.67	740.3	7.36	10.57	1972	3.85	37.55	734.2	6.79	11.02
						0.3	CS	3.37	21.84	728.6	6.26	11.48	1975	3.49	29.88	701.4	6.81	11.69
							HT	3.07	26.55	620.0	7.45	13.22	HOT ST	3.05	20.71	654.5	6.73	12.74
							HS	3.04	15.34	686.2	6.06	12.33						
163		68	VOLK	BUG	91	320	CT	6.65	102.20	293.3	2.62	18.69	1972	7.56	118.51	259.0	1.54	18.92
						3.3	CS	8.40	133.49	227.5	0.55	19.14	1975	7.52	117.44	247.8	1.19	19.46
							HT	6.48	98.26	252.2	1.34	20.79	HOT ST	6.86	117.91	255.1	1.04	19.21
							HS	7.21	135.95	257.8	0.77	17.96						
164		67	AMER	WAGO	290	200	CT	8.28	152.33	534.0	1.63	11.10	1972	7.45	160.69	502.5	1.11	11.40
						3.2	CS	6.69	168.38	473.6	0.64	11.69	1975	6.81	154.78	476.5	0.97	11.98
							HT	5.93	130.66	438.6	1.11	13.40	HOT ST	6.16	143.74	453.0	0.84	12.71
							HS	6.37	155.74	466.2	0.60	12.14						
165		67	BUIC	SKYL	340	450	CT	4.81	105.65	505.4	2.43	12.93	1972	4.98	104.92	488.9	1.73	13.26
						4.0	CS	5.13	104.26	473.7	1.08	13.58	1975	4.69	98.41	471.0	1.55	13.86
							HT	3.77	81.79	440.0	1.79	15.29	HOT ST	4.19	88.75	449.3	1.36	14.75
							HS	4.58	95.14	457.8	0.95	14.28						
166		67	CADI	COUP	429	80	CT	3.28	45.62	626.1	6.31	12.54	1972	2.85	34.36	631.7	5.48	12.78
						0.5	CS	2.46	24.03	636.9	4.71	13.01	1975	2.67	27.14	614.2	5.85	13.34
							HT	2.63	19.17	561.9	7.67	14.79	HOT ST	2.51	19.61	595.0	6.22	14.01
							HS	2.40	20.02	625.4	4.88	13.36						
167		67	CHEV	CHEV	250	800	CT	6.99	94.57	488.2	4.90	13.47	1972	4.11	65.30	494.1	3.39	14.56
						8.0	CS	1.47	38.43	499.6	2.01	15.73	1975	2.73	45.83	482.8	3.39	15.76
							HT	1.91	23.19	446.6	4.89	18.15	HOT ST	1.48	30.34	473.3	3.10	16.89
							HS	1.09	36.89	497.8	1.45	15.88						
168		67	CHEV	NOVA	283	10	CT	3.56	70.14	547.[illegible]	2.96	13.28	1972	3.10	53.51	549.8	2.98	13.79
						3.7	CS	2.67	38.24	552.1	3.00	14.31	1975	2.79	40.73	527.3	3.31	14.80
							HT	2.44	23.29	464.8	4.17	17.44	HOT ST	2.40	30.07	493.3	3.35	16.20
							HS	2.36	36.30	519.4	2.60	15.20						
169		67	CHEV	CHEV	283	500	CT	3.59	22.94	487.9	6.73	16.59	1972	3.50	16.15	489.4	6.12	16.88
						0.2	CS	3.42	9.92	490.8	5.56	17.17	1975	3.50	11.78	473.6	6.27	17.64
							HT	3.58	6.91	430.0	7.26	19.64	HOT ST	3.58	8.19	451.0	6.21	18.68
							HS	3.59	9.36	470.2	5.24	17.89						
170		67	CHEV	MALI	327	240	CT	3.98	43.97	588.0	4.02	13.26	1972	3.26	25.45	577.1	3.14	14.15
						0.3	CS	2.59	8.46	567.0	2.34	15.09	1975	2.92	15.47	552.6	3.37	15.15
							HT	2.74	7.36	498.3	4.86	17.12	HOT ST	2.59	6.92	522.6	3.51	16.39
							HS	2.45	6.51	545.0	2.27	15.77						

* E = EVAP TEST & MODALS, M = MODALS, BLANK = NONE, RE = REPLICATE EVAP TEST

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
171		67	CHRY	NEWP	383	165	CT	6.84	125.99	538.7	3.14	11.71	1972	6.29	124.03	558.4	2.50	11.48
						2.8	CS	5.79	122.23	576.6	1.92	11.28	1975	5.71	112.38	545.2	2.47	12.00
							HT	4.73	83.29	490.0	3.01	13.96	HOT ST	4.96	102.63	529.9	2.40	12.56
							HS	5.17	120.39	566.6	1.84	11.50						
172		67	DODG	VAN	318	2000	CT	66.65	390.61	343.1	0.25	7.60	1972	51.14	282.50	383.3	0.36	8.97
						1.8	CS	36.91	183.25	420.2	0.46	10.76	1975	41.13	216.52	387.0	0.45	10.35
							HT	29.94	148.78	356.7	0.59	12.95	HOT ST	31.95	135.46	374.8	0.50	17.32
							HS	33.80	161.59	391.3	0.41	11.80						
173		67	FORD	MUST	289	350	CT	8.46	121.59	414.1	3.03	14.05	1972	10.10	178.34	381.8	1.75	12.79
						6.0	CS	11.61	230.45	352.1	0.58	11.82	1975	9.55	174.97	372.8	1.74	13.10
							HT	6.45	109.25	381.0	2.98	15.49	HOT ST	8.45	165.97	365.3	1.73	13.60
							HS	10.28	218.06	350.9	0.59	12.23						
174		67	FORD	FAIR	289	105	CT	4.99	71.78	468.3	4.72	14.87	1972	4.47	71.25	466.3	3.89	14.99
						2.2	CS	3.99	70.76	464.5	3.14	15.09	1975	4.11	63.34	455.5	4.16	15.63
							HT	3.68	42.78	428.8	5.67	17.49	HOT ST	3.75	54.75	439.3	4.39	16.53
							HS	3.81	65.74	449.0	3.20	15.73						
175		67	FORD	GALA	390	110	CT	1.79	13.00	789.9	3.40	10.88	1972	1.53	9.47	798.4	2.74	10.85
						0.1	CS	1.30	6.23	806.3	2.13	10.83	1975	1.50	8.19	765.3	2.68	11.34
							HT	1.65	8.31	668.1	3.18	12.93	HOT ST	1.46	6.66	846.1	2.66	10.31
							HS	1.28	5.14	1009.2	2.19	8.69						
176		67	MERC	COUG	390	400	CT	3.96	74.01	489.5	4.63	14.36	1972	3.71	52.23	517.9	3.75	14.51
						0.6	CS	3.48	32.24	543.9	2.95	14.66	1975	3.44	36.07	506.1	4.04	15.48
							HT	2.97	14.75	446.4	5.69	18.54	HOT ST	3.27	19.27	491.9	4.16	16.67
							HS	3.54	23.41	533.[illegible]	2.76	15.26						
177		67	OLDS	TORO	425	60	CT	3.19	23.75	748.3	2.60	11.16	1972	2.72	17.81	753.8	2.40	11.23
						0.0	CS	2.28	12.37	758.8	2.22	11.30	1975	2.38	14.28	727.3	2.55	11.72
							HT	1.95	10.78	651.5	3.13	13.16	HOT ST	2.22	9.42	688.0	2.68	12.51
							HS	2.47	8.17	721.5	2.27	11.96						
178		67	PLYM	BARR	225	140	CT	4.10	44.88	398.6	4.74	18.42	1972	3.51	42.58	387.6	4.22	19.07
						3.1	CS	2.97	40.47	377.6	3.74	19.70	1975	3.02	38.62	376.5	4.13	19.88
							HT	2.30	30.35	357.7	4.43	21.52	HOT ST	2.60	37.37	361.2	3.86	20.74
							HS	2.88	43.82	364.4	3.33	20.07						
179		67	PONT	LEMA	326	220	CT	9.08	158.55	538.6	1.72	10.87	1972	6.45	116.14	550.8	1.42	11.78
						2.5	CS	4.04	77.20	562.0	1.15	12.75	1975	4.95	88.39	534.0	1.53	12.89
							HT	3.57	56.84	477.0	2.11	15.37	HOT ST	3.66	60.59	510.0	1.61	14.39
							HS	3.74	64.04	540.4	1.16	13.60						
180		67	VOLK	KARM	91	500	CT	6.33	84.87	231.3	2.19	23.08	1972	9.72	125.30	305.3	2.02	16.66
						6.5	CS	12.83	162.42	373.3	1.87	13.27	1975	9.45	120.43	300.0	1.96	17.10
							HT	5.34	67.00	212.0	1.94	26.56	HOT ST	9.01	114.00	292.0	1.81	17.77
							HS	12.38	157.15	365.1	1.70	13.63						

* E = EVAP TEST & MODALS, M = MODALS, BLANK = NONE, RE - REPLICATE EVAP TEST

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

ST LOUIS

VEH	*	YR	MAKE	MOD	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOX	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
1	M	74	BUIC	LIMI	455	[illegible]	CT	3 25	[illegible]	[illegible] 4	2 68	8 78	1972	2 83	24 31	948 9	2 11	8 91
						0 4	CS	2 45	9 [illegible]	958 5	1 20	9 04	1975	2 48	17 85	913 1	2 15	9 35
							HT	1 97	16 22	807 2	2 80	10 58	HOT ST	2 34	14 57	896 2	2 35	9 58
							HS	2 67	13 05	978 0	1 93	8 82						
2	M	74	CHEV	MONT	400	70	CT	2 14	27 82	925 8	2 18	8 95	1972	1 79	27 09	900 8	1 69	9 36
						0 4	CS	1 40	17 24	877 [illegible]	1 24	9 76	1975	1 84	25 50	859 6	1 59	9 80
							HT	2 [illegible]	[illegible]	774 7	1 83	10 66	HOT ST	2 13	26 56	785 4	1 40	10 65
							HS	1 94	21 [illegible]	[illegible]	1 00	10 63						
3	M	74	CHEV	CAME	350	80	CT	2 41	33 40	797 1	1 94	11 14	1972	2 30	29 25	771 9	1 50	10 76
						0 3	CS	2 19	25 33	803 9	1 10	10 44	1975	2 31	26 59	758 6	1 53	10 99
							HT	2 45	23 74	699 3	2 03	12 11	HOT ST	2 31	33 02	724 6	1 45	11 33
							HS	2 18	41 55	757 9	0 92	10 70						
4	M	74	DODG	DART	225	70	CT	3 00	41 45	480 0	3 90	15 71	1972	3 11	51 14	461 2	2 97	16 10
						2 6	CS	2 60	55 [illegible]	444 0	2 11	16 47	1975	2 81	48 49	443 5	2 85	16 80
							HT	2 48	27 18	415 1	3 47	18 45	HOT ST	2 58	45 04	416 3	2 75	17 93
							HS	2 66	52 30	417 5	2 08	17 47						
5	M	74	FORD	TORI	351	80	CT	2 04	30 79	853 1	4 50	9 75	1972	2 43	19 68	877 4	3 86	9 69
						0 7	CS	2 05	9 48	899 4	3 20	9 64	1975	2 20	14 20	841 6	3 76	9 97
							HT	2 11	10 63	795 6	4 21	10 84	HOT ST	2 01	10 00	881 3	3 93	9 83
							HS	2 00	9 54	900 0	3 68	9 05						
6	M	74	FORD	CUST	351	80	CT	2 90	51 65	712 9	1 97	11 05	1972	2 67	36 03	800 9	2 24	10 25
						0 4	CS	2 40	21 59	881 8	2 50	9 61	1975	2 47	28 40	806 7	2 44	10 33
							HT	2 25	23 59	734 2	2 57	11 40	HOT ST	2 24	18 07	808 6	2 68	10 52
							HS	2 24	12 91	877 0	2 68	9 82						
7	M	74	OLDS	CUTL	350	40	CT	2 76	23 55	775 8	2 81	10 55	1972	2 50	15 75	777 0	2 56	10 70
						0 1	CS	2 26	8 77	798 1	2 34	10 84	1975	2 31	11 42	763 5	2 58	11 26
							HT	2 07	7 47	673 2	2 85	12 84	HOT ST	2 17	7 72	717 3	2 53	12 06
							HS	2 20	7 74	757 8	2 24	11 42						
8	M	74	PLYM	SATT	318	110	CT	5 [illegible]	57 94	650 3	3 30	11 36	1972	4 82	50 00	692 5	3 10	11 29
						1 4	CS	5 81	33 52	725 8	2 92	11 23	1975	4 19	36 79	687 5	3 34	11 70
							HT	3 59	19 54	637 8	4 16	13 06	HOT ST	3 54	25 31	652 8	3 33	12 62
							HS	3 49	30 60	666 1	2 57	12 24						
9	M	74	PONT	CATA	400	110	CT	3 63	51 93	871 3	2 53	9 21	1972	2 79	34 92	859 6	2 36	9 62
						0 7	CS	2 03	19 31	848 9	2 70	10 03	1975	2 24	23 78	796 8	2 26	10 55
							HT	1 61	11 11	641 2	2 15	13 38	HOT ST	1 79	14 62	738 3	2 52	11 58
							HS	1 96	17 85	827 3	2 87	10 30						
10	M	74	VOLK	BEET	97	70	CT	3 79	42 42	311 7	4 45	22 75	1972	3 14	43 14	304 9	3 40	23 20
						1 4	CS	2 54	43 80	298 8	2 44	23 63	1975	2 94	41 22	299 6	3 32	23 76
							HT	3 04	35 40	292 0	4 13	24 65	HOT ST	2 86	40 35	294 9	3 32	24 17
							HS	2 70	44 91	297 5	2 57	23 57						

* E = EVAP TEST + MODALS, M = MODALS, BLANK = NONE, RE = REPLICATE EVAP TEST

APPENDIX [illegible]

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

ST. LOUIS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HC	CO	CO2	NOX	MPG	FTP TYPE	HC	CO	CO2	NOX C	MPG
11	M	[illegible]	AMER	HORN	258	[illegible]	CT	[illegible]	[illegible]	481.0	3.56	14.82	1972	[illegible]	[illegible]	494.[illegible]	2.71	[illegible]
							CS	[illegible]	104.58	[illegible]	1.94	[illegible]	1975	2.54	84.20	[illegible]	[illegible]	14.11
							HT	[illegible]	[illegible]	454.[illegible]	4.22	16.28	HOT ST	2.28	[illegible]	[illegible]	[illegible]	[illegible]
							HS	[illegible]	104.[illegible]	[illegible]	[illegible]	[illegible]						
12	M	73	BUIC	CENT	350	70 [illegible]	CT	4.74	[illegible]	[illegible]	[illegible]	[illegible]	1972	3.51	57.21	[illegible]	2.43	11.42
							CS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1975	[illegible]	25.5[illegible]	[illegible]	[illegible]	[illegible]
							HT	[illegible]	[illegible]	[illegible]	[illegible]	13.69	HOT ST	[illegible]	14.31	[illegible]	[illegible]	12.73
							HS	[illegible]	[illegible]	[illegible]	1.51	12.30						
13	M	73	BUIC	ESTA	455	70 [illegible]	CT	4.44	5[illegible].21	834.4	5.38	9.45	1972	3.85	54.23	851.7	4.[illegible]	9.35
							CS	[illegible]	[illegible]	[illegible]	3.16	[illegible]	1975	3.14	[illegible]	831.8	[illegible]	[illegible]
							HT	[illegible]	[illegible]	761.4	5.96	10.88	HOT ST	[illegible]	3[illegible].58	802.7	[illegible]	10.14
							HS	[illegible]	[illegible]	[illegible]	3.81	[illegible]						
14	M	73	CADI	[illegible]	472	[illegible]	CT	[illegible]	[illegible]	[illegible]	3.26	[illegible]	1972	2.55	55.57	[illegible]	3.12	8.30
							CS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1975	[illegible]	[illegible]	923.7	[illegible]	[illegible]
							HT	[illegible]	[illegible]	[illegible]	3.54	10.11	HOT ST	1.86	28.87	846.7	3.04	9.67
							HS	[illegible]	[illegible]	[illegible]	2.57	[illegible]						
15	M	73	CAPR	CAPR	122	150 [illegible]	CT	[illegible]	52.48	[illegible]	3.42	17.50	1972	2.23	47.74	[illegible]	2.32	18.49
							CS	[illegible]	[illegible]	[illegible]	1.31	19.51	1975	[illegible]	40.76	386.9	[illegible]	17.42
							HT	[illegible]	[illegible]	[illegible]	3.47	[illegible]	HOT ST	[illegible]	34.17	[illegible]	[illegible]	[illegible]
							HS	[illegible]	40.54	[illegible]	1.51	18.87						
16	M	73	CHEV	VEGA	140	[illegible] 1.4	CT	[illegible]	[illegible]	[illegible]	4.60	17.15	1972	3.20	40.65	391.2	3.78	[illegible]
							CS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1975	[illegible]	[illegible]	376.4	3.58	[illegible]
							HT	[illegible]	[illegible]	[illegible]	3.68	[illegible]	HOT ST	2.13	20.37	364.4	3.35	22.02
							HS	[illegible]	[illegible]	[illegible]	2.85	[illegible]						
17	M	73	CHEV	CHEV	250	40	CT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1972	[illegible]	27.08	593.3	2.17	[illegible]
							CS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1975	[illegible]	24.46	[illegible]	[illegible]	14.22
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	[illegible]	583.8	2.35	14.18
							HS	[illegible]	[illegible]	[illegible]	[illegible]	13.04						
18	M	73	CHEV	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12.11	1972	3.44	28.70	[illegible]	2.22	12.35
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1975	[illegible]	[illegible]	645.1	2.22	12.80
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	[illegible]	[illegible]	2.18	[illegible]
							HS	2.21	[illegible]	[illegible]	[illegible]	12.81						
19	M	73	CHEV	CHEV	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1972	[illegible]	78.09	[illegible]	2.01	[illegible]
							[illegible]	[illegible]	[illegible]	[illegible]	1.74	[illegible]	1975	[illegible]	54.11	[illegible]	2.24	11.10
							HT	[illegible]	[illegible]	[illegible]	[illegible]	12.04	HOT ST	[illegible]	[illegible]	[illegible]	[illegible]	11.89
							HS	[illegible]	[illegible]	[illegible]	1.88	[illegible]						
20	M	73	CHEV	MONT	350	100 [illegible]	CT	[illegible]	35.20	[illegible]	2.16	11.24	1972	[illegible]	30.94	736.4	1.78	11.21
							CS	[illegible]	[illegible]	[illegible]	1.43	11.18	1975	2.25	27.84	712.1	1.73	11.34
							HT	[illegible]	[illegible]	[illegible]	[illegible]	13.01	HOT ST	2.16	[illegible]	[illegible]	[illegible]	12.08
							HS	[illegible]	[illegible]	[illegible]	1.34	[illegible]						

* E = EVAP TEST [illegible] M = [illegible] BLANK = NONE; RE = REPLICATE EVAP TEST

APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

VEH	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NO C	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
21	M	73	CHEV	MALI	350	100	CT	3.79	35.04	599.6	0.99	11.67	1972	2.94	84.44	614.4	0.77	11.74
						1.9	CS	2.19	74.70	628.0	0.56	11.80	1975	2.60	75.02	601.0	0.80	12.21
							HT	2.55	60.52	550.6	1.12	13.58	HOT ST	2.32	66.53	584.1	0.81	12.76
							HS	2.11	72.04	614.9	0.52	12.08						
22	M	73	CHEV	MONT	350	60	CT	3.08	30.84	645.7	3.04	12.61	1972	2.55	28.63	644.5	2.60	12.73
						0.8	CS	2.07	26.60	643.5	2.19	12.83	1975	2.24	25.49	617.1	2.71	13.37
							HT	1.95	19.34	545.1	3.44	15.26	HOT ST	1.92	25.43	528.5	2.59	15.45
							HS	1.88	31.02	511.3	1.81	15.63						
23	M	73	CHEV	CAPR	400	60	CT	3.45	37.65	778.2	2.82	10.45	1972	3.01	28.63	772.8	2.41	10.73
						0.3	CS	2.60	20.35	707.0	2.23	11.[illegible]	1975	2.70	22.02	699.6	2.12	11.95
							HT	2.31	13.44	510.9	1.55	16.46	HOT ST	2.46	16.17	635.2	1.59	13.28
							HS	2.60	18.68	749.3	1.63	11.28						
24	M	73	CHRY	NEWP	400	120	CT	4.82	54.09	663.6	3.72	11.62	1972	4.02	48.64	681.2	2.97	11.52
						2.4	CS	3.29	45.53	697.4	2.29	11.44	1975	3.58	40.89	676.0	2.96	11.81
							HT	3.21	25.70	644.6	3.68	12.77	HOT ST	3.03	35.94	675.2	3.04	11.98
							HS	2.86	45.35	703.3	2.45	11.33						
25	M	73	DATS	1600	97	110	CT	3.18	40.70	415.2	4.33	18.15	1972	2.97	31.65	418.5	3.21	18.59
						2.8	CS	2.79	23.34	421.4	2.18	19.01	1975	2.71	24.54	409.3	3.24	19.45
							HT	2.20	14.62	381.5	4.14	21.58	HOT ST	2.56	19.67	390.6	3.18	20.70
							HS	2.89	24.32	397.7	2.02	19.95						
26	M	73	DODG	DART	318	40	CT	4.06	49.86	619.2	8.32	12.50	1972	3.06	31.41	593.6	5.60	13.60
						0.2	CS	2.13	14.48	570.0	3.10	14.81	1975	2.65	21.32	576.7	5.50	14.35
							HT	2.55	12.85	557.3	7.93	15.16	HOT ST	2.23	13.00	561.3	5.41	15.08
							HS	1.94	12.14	565.0	3.10	15.00						
27	M	73	DODG	DART	318	100	CT	4.32	50.67	551.4	3.55	13.77	1972	3.13	33.33	555.8	2.67	14.36
						1.1	CS	2.05	17.41	559.8	1.86	14.96	1975	2.58	23.25	540.6	2.62	15.17
							HT	2.29	13.71	495.8	3.37	16.92	HOT ST	2.33	18.44	535.4	2.65	15.53
							HS	2.38	22.79	571.8	1.78	14.43						
28	M	73	FORD	PINT	122	190	CT	3.29	46.19	300.0	5.01	23.18	1972	3.27	41.00	294.6	4.03	24.03
						3.8	CS	3.26	36.24	287.6	3.14	24.98	1975	3.02	33.75	288.8	4.10	25.26
							HT	2.36	19.60	278.8	5.24	27.99	HOT ST	2.69	25.84	286.9	4.10	26.42
							HS	3.00	31.57	294.2	3.06	25.13						
29	M	73	FORD	MAVE	200	150	CT	3.70	47.35	437.3	4.71	16.96	1972	3.04	52.34	399.6	3.25	18.06
						5.0	CS	2.43	56.92	365.9	1.91	19.21	1975	2.62	46.41	378.2	2.92	19.32
							HT	2.16	25.61	356.9	3.52	21.87	HOT ST	2.26	38.01	360.1	2.66	20.79
							HS	2.35	49.40	361.2	1.87	19.90						
30	M	73	FORD	TORI	302	150	CT	3.89	53.34	559.5	3.62	13.54	1972	3.38	45.32	532.8	2.58	14.44
						3.2	CS	2.91	37.96	508.3	1.62	15.38	1975	3.22	38.60	527.5	2.37	14.84
							HT	3.30	28.71	539.5	2.87	14.91	HOT ST	3.34	32.02	555.1	2.44	14.41
							HS	3.37	35.06	569.6	2.04	13.97						

* E = EVAP TEST & MODALS, M = MODALS, BLANK = NONE, RE = REPLICATE EVAP TEST

APPENDIX C

[illegible] OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

ST. LOUIS

VEH	[illegible]	YR	MAKE	MODL	CID	ODO 100	[illegible]	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
31	M	73	FORD	GALX	351	120	CT	4.00	57.74	[illegible]	3.82	11.18	1972	3.43	47.22	716.9	2.56	11.03
						[illegible]	CS	2.71	41.35	737.8	1.59	10.73	1975	3.06	42.28	[illegible]	2.52	11.48
							HT	2.95	[illegible]	620.8	[illegible]	12.05	HOT ST	2.83	75.98	685.3	2.50	11.91
							HS	2.81	[illegible]	744.5	1.79	10.69						
32	M	73	FORD	TORI	351	150	CT	4.83	76.13	720.4	3.14	10.38	1972	4.65	91.25	669.5	2.22	10.73
						5.0	CS	4.47	105.14	[illegible]	1.37	11.07	1975	4.53	85.33	630.3	2.13	11.40
							HT	4.41	54.41	575.7	2.85	13.13	HOT ST	4.72	74.27	591.1	1.92	12.28
							HS	5.01	92.49	604.4	1.09	11.60						
33	M	73	FORD	LTD	400	120	CT	4.30	42.23	784.9	2.91	10.27	1972	3.73	38.07	741.5	2.17	10.92
						0.3	CS	3.21	34.20	701.8	1.49	11.50	1975	3.12	31.64	700.0	1.96	11.69
							HT	2.06	18.57	632.7	2.14	13.28	HOT ST	2.06	22.03	660.9	1.87	12.65
							HS	2.06	25.12	686.8	1.67	12.12						
34	M	73	FORD	LTD	400	180	CT	[illegible]	83.26	634.7	11.71	11.18	1972	8.37	88.23	612.1	9.93	11.42
						5.6	CS	7.37	72.80	591.3	8.11	11.67	1975	8.63	77.93	570.2	9.25	12.00
							HT	10.40	45.50	554.6	9.45	13.47	HOT ST	8.33	66.57	566.9	8.71	12.72
							HS	[illegible]	35.91	578.1	8.09	12.11						
35	M	73	MAZD	RX3	70	170	CT	6.48	29.08	528.4	1.95	14.93	1972	6.07	27.30	588.2	1.53	13.65
						1.7	CS	[illegible]	25.66	643.2	1.15	12.65	1975	[illegible]	28.17	574.2	1.61	13.91
							HT	[illegible]	32.27	478.8	2.24	16.15	HOT ST	7.06	32.57	542.9	1.73	14.40
							HS	[illegible]	22.84	603.8	1.25	13.10						
36	M	73	MERC	MARQ	[illegible]	[illegible]	CT	[illegible]	51.06	812.3	4.15	9.72	1972	7.57	68.90	718.0	2.74	10.44
						2.4	CS	[illegible]	65.29	691.3	1.45	11.21	1975	7.16	67.54	675.3	2.59	11.04
							HT	5.14	46.05	[illegible]	[illegible]	11.93	HOT ST	5.97	64.51	657.9	2.52	11.41
							HS	[illegible]	51.47	[illegible]	1.54	10.97						
37	M	73	OLDS	CUTL	350	[illegible]	CT	3.28	[illegible]	778.0	[illegible]	10.58	1972	2.72	22.66	728.0	2.66	11.50
						0.5	CS	[illegible]	13.85	682.1	[illegible]	12.19	1975	[illegible]	13.88	692.5	3.03	12.21
							HT	[illegible]	11.08	647.9	4.41	13.18	HOT ST	[illegible]	14.44	706.4	3.86	12.04
							HS	2.87	17.55	[illegible]	3.25	11.14						
38	M	73	OLDS	DELT	455	90	CT	[illegible]	27.35	746.1	8.34	11.10	1972	2.91	24.63	745.6	7.92	11.19
						0.1	CS	3.00	21.85	745.3	7.54	11.25	1975	2.79	20.10	712.6	8.41	11.79
							HT	[illegible]	11.04	625.2	10.11	13.68	HOT ST	2.56	12.50	659.5	7.88	[illegible]
							HS	[illegible]	17.85	[illegible]	5.77	12.31						
39	M	73	PLYM	SATE	318	90	CT	2.92	23.11	647.5	4.80	12.77	1972	2.88	15.71	654.4	3.80	12.90
						0.1	CS	[illegible]	[illegible]	580.7	3.07	13.60	1975	2.56	12.34	631.3	3.85	13.48
							HT	[illegible]	10.78	[illegible]	4.76	15.12	HOT ST	[illegible]	8.53	600.1	3.81	14.31
							HS	[illegible]	[illegible]	[illegible]	[illegible]	13.64						
40	M	73	PLYM	[illegible]	[illegible]	[illegible]	CT	4.32	54.89	710.7	5.68	10.95	1972	3.60	51.80	700.8	4.47	11.19
						2.8	CS	[illegible]	[illegible]	[illegible]	3.17	11.41	1975	3.19	48.57	665.0	4.04	11.82
							HT	[illegible]	[illegible]	[illegible]	4.30	13.53	HOT ST	2.84	47.61	672.5	4.30	11.71
							HS	[illegible]	51.31	[illegible]	4.28	10.47						

[illegible] NONE, RE = REPLICATE EVAP TEST

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

VEH	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
41	M	73	PONT	LEMA	350	190	CT	3.55	46.21	709.9	2.73	11.18	1972	3.44	39.17	680.5	3.20	11.79
						4.0	CS	3.34	32.70	653.5	3.63	12.41	1975	3.38	32.82	654.1	4.92	12.39
							HT	3.32	22.93	613.0	9.01	13.46	HOT ST	3.07	24.19	642.6	5.90	12.86
							HS	2.83	25.35	669.9	3.04	12.35						
42	M	73	PONT	SAFA	400	100	CT	4.84	82.96	923.1	4.14	8.31	1972	3.79	59.57	889.4	2.69	8.92
						1.5	CS	2.83	38.10	858.1	1.36	9.58	1975	3.42	42.86	876.1	2.25	9.30
							HT	3.50	21.71	874.6	2.51	9.65	HOT ST	3.14	27.90	878.3	1.81	9.52
							HS	2.82	33.59	881.8	1.17	9.41						
43	M	73	TOYO	CORO	97	550	CT	3.62	28.90	347.0	5.62	21.98	1972	3.74	30.27	333.0	4.04	22.63
						9.0	CS	3.85	31.53	320.0	2.58	23.26	1975	3.66	28.08	316.5	3.33	23.85
							HT	3.31	20.85	286.9	4.87	26.89	HOT ST	3.80	26.78	301.6	3.62	24.96
							HS	4.24	32.23	315.1	2.48	23.42						
44	M	73	VOLK	BEET	97	90	CT	4.09	46.52	275.4	3.68	24.56	1972	4.00	49.03	291.4	2.77	23.29
						1.4	CS	3.92	51.34	306.2	2.31	22.24	1975	3.74	45.04	294.0	2.86	23.57
							HT	3.13	31.90	284.9	3.27	25.74	HOT ST	3.46	40.45	288.6	2.77	24.45
							HS	3.76	48.29	292.0	2.31	23.37						
45	M	73	VOLV	412	103	70	CT	5.53	42.28	388.1	3.37	18.81	1972	4.01	56.52	365.2	2.64	19.02
						1.1	CS	2.61	69.59	344.2	1.97	19.22	1975	3.58	55.55	349.7	2.53	19.80
							HT	3.96	38.74	331.1	2.97	21.95	HOT ST	3.23	56.97	335.4	2.68	20.40
							HS	2.55	73.71	339.3	2.41	19.17						
46	M	72	BUIC	SKYL	350	200	CT	3.94	63.50	638.1	6.59	11.83	1972	4.29	86.11	612.9	4.81	11.65
						0.6	CS	4.61	106.87	589.8	3.19	11.50	1975	4.30	84.63	603.7	5.03	11.83
							HT	3.97	58.07	604.4	7.38	12.54	HOT ST	4.12	79.57	610.0	5.91	11.87
							HS	4.26	99.30	615.1	4.55	11.32						
47	M	72	BUIC	ELEC	455	60	CT	3.58	60.69	794.4	6.03	9.85	1972	2.90	55.89	799.8	4.83	9.90
						1.4	CS	2.29	51.43	804.7	3.73	9.94	1975	2.46	16.92	761.8	4.82	10.49
							HT	1.94	27.82	666.2	5.97	12.40	HOT ST	2.15	40.92	720.6	4.77	11.10
							HS	2.35	52.95	795.9	3.67	10.13						
48	M	72	CHEV	VEGA	140	250	CT	1.90	60.74	425.5	3.69	16.85	1972	1.25	44.12	409.5	2.67	18.39
						1.5	CS	0.66	28.86	374.8	1.73	20.00	1975	1.09	34.28	389.5	2.74	19.87
							HT	1.31	24.63	352.2	3.96	22.47	HOT ST	0.92	26.05	372.7	2.84	21.31
							HS	0.55	27.31	391.5	1.81	20.35						
49	M	72	CHEV	NOVA	250	190	CT	3.26	35.26	481.4	4.52	16.23	1972	3.20	43.95	470.1	3.40	16.16
						3.4	CS	3.14	51.93	459.8	2.38	16.10	1975	3.12	40.78	457.5	3.48	16.70
							HT	2.99	23.64	435.2	4.82	18.43	HOT ST	3.13	39.74	432.5	3.45	17.59
							HS	3.26	54.52	429.9	2.20	16.88						
50	M	72	CHEV	NOVA	307	170	CT	2.65	12.76	588.7	3.47	14.39	1972	2.25	7.95	568.3	2.76	15.10
						0.1	CS	1.88	3.53	549.6	2.12	15.92	1975	2.31	6.44	542.3	2.68	15.86
							HT	2.87	7.25	493.3	3.16	17.23	HOT ST	2.36	5.35	509.4	2.65	16.90
							HS	1.90	3.60	524.3	2.18	16.57						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

VEH	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
51	M	72	CHEV	KING	350	550	CT	4.35	57.88	[illegible]	5.79	11.47	1972	4.64	54.01	625.8	4.31	12.27
						[illegible]	CS	4.45	50.46	580.4	3.01	13.12	1975	4.37	50.40	603.5	4.23	12.75
							HT	7.86	44.52	590.3	5.42	13.14	HOT ST	4.13	54.91	583.9	3.90	13.99
							HS	4.37	64.86	575.2	2.51	12.86						
52	M	72	CHEV	BISC	350	100	CT	5.29	36.79	746.8	7.25	10.04	1972	3.78	49.31	772.9	5.29	10.30
						1.2	CS	2.40	24.00	796.8	3.50	10.54	1975	3.14	35.22	775.3	5.06	10.56
							HT	2.91	25.16	755.7	6.37	11.04	HOT ST	2.84	25.15	776.2	5.15	10.77
							HS	2.75	25.15	795.0	4.03	10.53						
53	M	72	CHEV	VEGA	140	80	CT	3.16	213.2	373.8	4.53	12.35	1972	2.76	122.53	354.3	4.18	15.98
						0.5	CS	2.40	39.23	336.4	3.85	21.89	1975	2.44	71.94	345.6	4.29	19.04
							HT	1.97	27.82	341.9	4.96	22.66	HOT ST	2.20	35.91	330.5	4.16	22.54
							HS	2.40	43.32	320.0	3.43	22.44						
54	M	72	CHEV	KING	400	70	CT	4.91	66.47	703.1	6.26	10.78	1972	3.49	37.62	702.8	5.05	11.49
						0.1	CS	2.18	11.14	702.2	3.93	12.22	1975	1.87	23.99	678.2	5.21	12.25
							HT	2.64	16.51	613.1	6.87	13.71	HOT ST	2.28	13.20	651.2	5.02	13.07
							HS	1.95	10.15	686.0	3.32	12.54						
55	M	72	DATS	510	97	180	CT	2.54	21.75	311.8	5.04	25.08	1972	2.67	23.48	297.2	4.48	25.92
						[illegible]	CS	2.78	25.77	288.7	3.97	26.75	1975	2.56	22.79	294.3	4.51	26.25
							HT	2.16	19.22	301.2	5.13	26.25	HOT ST	2.38	22.79	291.7	4.64	26.50
							HS	2.59	20.05	283.1	4.20	26.72						
56	M	72	DODG	TRAD	318	120	CT	5.14	25.65	560.5	6.06	14.39	1972	4.35	14.82	552.7	4.59	15.05
						0.1	CS	3.63	4.88	545.6	3.24	15.72	1975	3.88	10.12	536.6	4.68	15.72
							HT	3.43	8.42	501.6	6.36	16.89	HOT ST	3.24	6.74	531.0	5.15	16.09
							HS	3.07	5.20	558.0	4.03	15.42						
57	M	[illegible]	DODG	DART	225	130	CT	4.22	59.42	407.1	7.94	17.28	1972	3.79	59.56	390.0	6.23	17.92
						3.6	CS	3.39	59.60	374.3	4.66	18.54	1975	3.45	54.31	378.9	6.00	18.68
							HT	2.97	40.19	366.5	7.11	20.22	HOT ST	2.83	46.24	365.4	5.86	19.85
							HS	2.20	51.79	364.5	4.72	19.53						
58	M	72	FORD	PINT	122	150	CT	4.02	52.99	369.2	5.84	19.08	1972	3.88	49.05	338.5	5.08	20.75
						4.8	CS	3.75	45.44	310.3	4.38	22.56	1975	3.75	44.28	321.0	5.10	22.06
							HT	3.54	35.56	305.1	5.89	21.86	HOT ST	3.54	42.64	303.7	5.08	23.25
							HS	3.53	49.20	302.5	4.34	22.71						
59	M	72	FORD	MUST	302	800	CT	5.13	41.94	596.8	6.18	13.08	1972	4.90	45.21	558.4	4.35	13.77
						4.0	CS	4.69	48.21	525.1	2.66	14.47	1975	4.67	40.31	527.7	4.16	11.65
							HT	4.30	23.95	484.4	5.50	16.58	HOT ST	4.66	32.69	507.3	4.16	15.48
							HS	4.99	40.72	528.3	2.93	14.60						
60	M	72	FORD	MUST	351	170	CT	5.17	83.78	536.7	4.85	12.97	1972	4.86	103.23	544.2	3.58	12.30
						7.8	CS	4.58	121.09	551.1	2.41	11.75	1975	4.81	101.29	528.6	3.61	12.63
							HT	4.97	76.68	479.5	4.78	14.12	HOT ST	4.63	99.37	507.9	3.56	13.08
							HS	4.31	120.20	594.0	2.26	12.06						

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APPENDIX C

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

VEH	*	YR	MAKE	MODL	CID	IHC/ ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
61	M	72	FORD	CUST	351	40	CT	2.35	30.19	534.2	3.94	15.07	1972	2.36	30.77	591.9	3.64	13.71
						0.1	CS	2.37	31.30	645.0	3.36	12.65	1975	2.49	31.53	582.8	3.95	13.87
							HT	2.83	32.98	500.8	5.09	15.81	HOT ST	2.54	31.08	543.7	4.09	14.78
							HS	2.26	29.34	583.1	3.17	13.95						
62	M	72	FORD	LTD	400	110	CT	6.35	113.99	716.2	4.54	9.70	1972	5.42	90.33	719.0	3.77	10.11
						3.2	CS	4.58	68.61	721.5	3.07	10.52	1975	4.73	71.16	693.1	4.01	10.83
							HT	3.81	43.74	621.6	5.41	12.64	HOT ST	3.92	49.44	662.6	4.25	11.79
							HS	4.02	54.68	700.4	3.19	11.11						
63	M	72	FORD	THUN	429	50	CT	4.33	95.64	695.1	6.70	10.33	1972	2.85	49.05	732.4	5.70	10.85
						0.1	CS	1.50	6.28	766.6	4.77	11.36	1975	2.40	25.37	720.8	6.04	11.56
							HT	2.66	8.82	652.6	7.94	13.16	HOT ST	2.22	6.70	696.9	6.15	12.43
							HS	1.81	4.75	737.6	4.50	11.83						
64	M	72	LINC	MARK	460	60	CT	4.26	55.39	699.0	8.52	10.89	1972	3.76	64.59	718.8	7.46	10.67
						1.7	CS	3.28	63.85	736.9	6.49	10.47	1975	3.32	56.91	678.3	6.94	11.41
							HT	2.67	37.27	550.7	6.60	14.37	HOT ST	2.80	43.47	646.2	6.27	12.27
							HS	2.92	49.16	733.9	5.96	10.82						
65	M	72	MERC	MONT	400	120	CT	5.54	53.19	757.0	7.10	10.35	1972	4.17	27.45	743.3	6.48	11.10
						0.1	CS	2.91	3.81	730.7	5.91	11.90	1975	3.34	14.32	712.0	6.60	11.92
							HT	2.46	5.07	642.3	7.55	13.49	HOT ST	2.77	4.41	671.9	6.78	12.91
							HS	3.04	3.31	699.1	6.07	12.42						
66	N	72	OLDS	DELT	350	220	CT	7.33	122.00	610.7	5.91	10.75	1972	6.63	136.04	555.5	3.93	11.23
						0.6	CS	5.99	148.93	504.8	2.11	11.72	1975	6.02	123.60	533.8	4.02	11.88
							HT	5.07	76.42	531.3	6.26	13.30	HOT ST	6.52	124.59	505.2	4.23	12.30
							HS	7.66	168.81	481.2	2.37	11.51						
67	M	72	OLDS	NINE	455	140	CT	2.31	35.27	790.4	4.81	10.41	1972	1.91	25.34	805.3	3.64	10.43
						0.8	CS	1.55	16.23	819.0	2.57	10.45	1975	1.90	17.96	763.6	3.30	11.13
							HT	2.24	8.20	637.5	3.56	13.50	HOT ST	1.87	12.45	712.5	3.02	12.03
							HS	1.53	16.35	781.3	2.53	10.94						
68	M	72	OPEL	1900	116	40	CT	3.21	75.00	424.0	2.26	16.08	1972	2.36	55.51	455.1	1.97	16.15
						0.7	CS	1.59	37.62	483.7	1.70	16.21	1975	1.94	41.12	450.0	2.04	17.05
							HT	1.67	22.21	405.1	2.53	19.93	HOT ST	1.66	33.93	433.9	1.95	18.03
							HS	1.65	44.64	460.1	1.12	16.57						
69	M	72	PLYM	FURY	360	50	CT	7.59	143.62	495.0	4.69	11.92	1972	6.05	130.46	540.9	4.03	11.60
						2.8	CS	4.63	118.36	583.1	3.12	11.33	1975	5.02	109.59	544.8	4.38	12.11
							HT	3.81	67.17	509.1	5.98	14.17	HOT ST	4.36	95.83	519.4	4.87	12.98
							HS	4.86	122.16	528.9	3.86	12.06						
70	M	72	PLYM	FURY	318	400	CT	3.77	39.77	546.3	7.34	14.30	1972	3.65	43.11	521.6	6.61	14.78
						1.4	CS	3.54	46.17	498.9	5.93	15.24	1975	3.40	39.73	504.8	6.67	15.36
							HT	2.56	27.41	434.7	7.56	16.54	HOT ST	3.13	37.21	478.0	6.55	16.25
							HS	3.37	46.21	471.8	5.62	15.99						

* E = EVAP TEST & MODALS, M = MODALS, BLANK = NONE, RE = REPLICATE EVAP TEST

[illegible]

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

[illegible]

VEH		YR	MAKE	MODL	CID	[illegible]	[illegible]	HC	CO	CO2	NOX	MPG	FTP TYPE	HC	CO	CO2	NOX	MPG
71	M	72	FORD	[illegible]	[illegible]	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1972	[illegible]	20.39	[illegible]	3.52	[illegible]
							CS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1975	[illegible]	24.23	[illegible]	3.60	11.77
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	2.74	17.77	[illegible]	3.71	[illegible]
							HS	[illegible]	[illegible]	714.1	[illegible]	12.74						
72	M	72	[illegible]	[illegible]	[illegible]	[illegible]	CT	[illegible]	[illegible]	[illegible]	4.11	[illegible]	1972	4.47	[illegible]	[illegible]	3.33	[illegible]
							CS	[illegible]	[illegible]	[illegible]	[illegible]	12.77	1975	[illegible]	15.71	[illegible]	[illegible]	[illegible]
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	2.70	[illegible]	[illegible]	[illegible]	[illegible]
							HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
73	M	72	TOYO	CELI	120	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1972	[illegible]	71.13	[illegible]	2.78	20.74
							CS	[illegible]	[illegible]	[illegible]	1.79	[illegible]	1975	[illegible]	66.84	209.7	[illegible]	21.06
							HT	5.42	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	62.41	[illegible]	2.81	[illegible]
							HS	[illegible]	[illegible]	[illegible]	1.73	[illegible]						
74	M	72	VOLK	[illegible]	[illegible]	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	20.66	1972	[illegible]	35.57	[illegible]	3.17	20.15
							CS	[illegible]	[illegible]	[illegible]	[illegible]	19.70	1975	[illegible]	42.76	[illegible]	[illegible]	[illegible]
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	4.16	[illegible]	354.1	2.77	20.42
							HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
75	M	72	VOLK	SUPE	[illegible]	[illegible]	CT	[illegible]	[illegible]	358.0	5.11	20.45	1972	[illegible]	35.19	361.7	3.64	20.31
							CS	[illegible]	34.48	355.8	[illegible]	21.14	1975	2.00	[illegible]	346.8	3.18	21.71
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	[illegible]	[illegible]	2.57	[illegible]
							HS	[illegible]	[illegible]	[illegible]	[illegible]	21.53						
76		71	AMER	[illegible]	[illegible]	[illegible]	CT	[illegible]	[illegible]	574.2	[illegible]	12.71	1972	[illegible]	[illegible]	590.0	3.06	[illegible]
							CS	2.75	[illegible]	[illegible]	[illegible]	[illegible]	1975	3.18	[illegible]	574.1	3.05	13.51
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	71.10	552.5	4.02	14.55
							HS	2.77	[illegible]	[illegible]	[illegible]	[illegible]						
77		71	BUIC	[illegible]	[illegible]	140	CT	[illegible]	[illegible]	[illegible]	[illegible]	10.64	1972	5.45	[illegible]	595.4	[illegible]	[illegible]
							CS	4.54	[illegible]	[illegible]	[illegible]	[illegible]	1975	4.61	128.04	[illegible]	2.54	11.03
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	3.95	[illegible]	[illegible]	[illegible]	11.65
							HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
78		71	BUIC	ELEC	455	150	CT	[illegible]	[illegible]	[illegible]	[illegible]	8.04	1972	4.87	129.16	[illegible]	4.71	8.42
							CS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1975	[illegible]	94.74	[illegible]	4.54	[illegible]
							HT	[illegible]	[illegible]	[illegible]	5.72	11.82	HOT ST	3.48	68.83	720.1	4.05	10.58
							HS	[illegible]	[illegible]	775.2	2.53	[illegible]						
79		71	CADI	DEVI	472	20	CT	[illegible]	[illegible]	[illegible]	5.51	8.88	1972	1.99	54.05	870.0	4.26	9.24
							CS	1.09	[illegible]	[illegible]	[illegible]	9.81	1975	1.56	32.85	830.8	4.51	10.01
							HT	1.41	15.71	[illegible]	[illegible]	[illegible]	HOT ST	1.24	17.59	782.6	4.57	10.91
							HS	[illegible]	[illegible]	[illegible]	2.88	10.19						
80		71	CHEV	VEGA	140	140	CT	2.24	[illegible]	[illegible]	[illegible]	[illegible]	1972	2.81	45.39	363.6	4.22	20.60
							CS	2.41	[illegible]	[illegible]	[illegible]	[illegible]	1975	2.46	[illegible]	351.4	4.17	[illegible]
							HT	[illegible]	[illegible]	[illegible]	5.37	24.07	HOT ST	2.17	23.04	317.3	4.38	[illegible]
							HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						

[illegible] M = MODAL [illegible] NONE RR = REPLICATE FTP TEST

APPENDIX A

LISTING OF FEDERAL TEST PROCEDURE RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

VEH #	*	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOX	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
81		71	CHEV	CAME	307	300	CT	4.64	40.12	611.9	4.66	12.87	1972	4.18	40.24	572.4	3.69	13.68
						3.4	CS	2.76	40.33	536.0	2.78	14.52	1975	4.07	37.87	550.9	3.56	14.24
							HT	4.24	31.45	533.1	3.19	14.89	HOT ST	3.98	25.81	534.0	3.39	14.73
							HS	3.74	39.82	534.6	2.65	14.58						
82		71	CHEV	IMPA	350	70	CT	5.47	66.40	725.1	6.39	10.36	1972	4.04	38.81	744.1	5.35	10.86
						0.1	CS	2.72	13.40	752.3	4.39	11.35	1975	3.26	24.22	719.1	5.44	11.57
							HT	2.34	12.74	640.5	6.70	13.21	HOT ST	2.60	12.17	680.1	5.10	12.91
							HS	2.56	11.46	675.5	3.61	12.66						
83		71	CHEV	IMPA	350	25	CT	4.93	41.50	567.3	5.22	13.66	1972	1.76	25.32	538.0	4.66	14.97
						0.1	CS	4.60	9.47	511.1	4.14	16.42	1975	4.42	16.14	518.5	4.73	15.92
							HT	3.70	8.93	495.7	5.47	17.03	HOT ST	4.18	8.18	509.5	4.74	16.56
							HS	4.62	7.49	522.3	4.07	16.18						
84		71	CHEV	IMPA	350	240	CT	4.55	96.96	676.9	3.60	10.52	1972	4.14	91.11	669.3	3.34	10.75
						5.4	CS	3.75	85.73	662.4	3.10	10.97	1975	3.75	82.67	648.1	3.57	11.24
							HT	3.15	66.05	599.0	4.44	12.46	HOT ST	3.38	79.73	592.7	3.48	12.18
							HS	3.59	92.28	586.9	2.60	11.94						
85		71	CHEV	CAPR	400	170	CT	4.38	63.73	647.2	6.50	11.66	1972	4.07	44.71	674.2	5.97	11.72
						0.8	CS	3.79	27.25	698.9	5.48	11.78	1975	3.68	32.57	658.8	6.17	12.30
							HT	2.94	19.22	590.9	7.23	14.08	HOT ST	3.38	23.15	638.0	6.32	12.96
							HS	2.76	26.77	681.2	5.49	12.08						
86		71	CHRY	IMPE	440	90	CT	6.53	128.21	705.7	4.56	9.57	1972	5.10	103.83	704.1	4.27	10.05
						2.6	CS	3.79	81.44	702.7	4.01	10.54	1975	4.21	81.62	687.6	4.67	10.70
							HT	3.25	46.82	645.8	6.04	12.17	HOT ST	3.30	56.67	664.7	4.93	11.62
							HS	3.35	65.71	682.1	3.90	11.15						
87		71	DATS	COUP	71	450	CT	3.62	37.09	232.8	2.19	29.35	1972	3.85	38.50	221.9	2.00	30.13
						3.2	CS	4.07	39.80	211.5	1.83	30.89	1975	3.69	36.06	214.2	2.08	31.42
							HT	3.02	28.16	204.6	2.50	34.35	HOT ST	3.47	38.16	208.0	2.11	32.56
							HS	3.86	37.68	211.1	1.74	31.07						
88		71	DODG	CORO	318	100	CT	4.22	60.69	609.9	3.94	12.35	1972	3.86	58.19	598.3	4.61	12.65
						2.2	CS	3.53	55.89	587.6	4.31	12.93	1975	3.54	50.94	581.5	4.71	13.20
							HT	3.06	34.13	548.3	5.29	14.51	HOT ST	3.34	47.29	565.3	4.66	13.65
							HS	3.69	59.38	580.9	4.09	12.95						
89		71	FORD	FINT	122	110	CT	4.03	[illegible]	322.1	2.79	20.20	1972	3.72	59.50	338.0	2.41	20.03
						4.0	CS	3.43	55.21	352.4	2.06	18.87	1975	3.36	49.65	337.0	2.57	20.86
							HT	2.71	30.25	318.7	2.38	23.69	HOT ST	3.02	42.01	329.6	2.70	21.91
							HS	3.30	52.91	329.7	2.07	20.50						
90		71	FORD	MAVE	200	90	CT	2.70	22.59	435.3	6.59	18.52	1972	2.54	18.43	421.6	5.45	19.36
						0.1	CS	2.38	14.61	409.0	4.39	20.20	1975	2.42	14.81	406.5	5.39	20.29
							HT	2.28	9.31	380.1	6.39	22.09	HOT ST	2.26	9.42	392.0	5.58	21.45
							HS	2.24	9.53	402.9	4.84	20.89						

* E = EVAP TEST & MODALS, M = MODALS, BLANK = NONE, RE = REPLICATE EVAP TEST

APPENDIX [illegible]

LISTING OF [illegible] TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

ST. LOUIS

VEH #	YR	MAKE	MODL	CID	[illegible] 100	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
91	71	FORD	MUST	302	100	CT	2.84	21.12	[illegible]	2.15	12.19	1972	3.00	45.33	616.5	2.37	12.73
					[illegible]	CS	2.34	20.61	[illegible]	1.88	13.27	1975	2.92	[illegible]	578.6	2.35	[illegible]
						HT	2.23	22.06	554.5	3.06	14.80	HOT ST	3.06	27.16	540.3	2.45	14.78
						HS	2.61	21.82	527.3	1.91	15.15						
92	71	FORD	CONT	351	150	CT	4.[illegible]	[illegible]	[illegible]	4.20	12.71	1972	3.32	54.18	500.5	3.60	12.13
					4.0	CS	2.40	42.44	581.2	3.05	13.54	1975	2.77	41.81	559.6	2.79	14.00
						HT	2.30	21.32	[illegible]	4.89	14.32	HOT ST	2.19	27.23	547.3	4.13	14.87
						HS	2.[illegible]	[illegible]	508.0	3.43	13.76						
93	71	FORD	MAVE	302	200	CT	[illegible]	[illegible]	[illegible]	2.77	11.21	1972	2.82	65.26	681.3	2.43	11.20
					0.6	CS	1.[illegible]	47.58	[illegible]	2.11	11.19	1975	2.33	47.39	657.0	2.38	11.73
						HT	[illegible]	24.18	561.8	2.51	14.35	HOT ST	2.05	40.62	609.6	2.14	13.08
						HS	[illegible]	[illegible]	[illegible]	1.80	11.57						
94	71	MERC	MARQ	429	200	CT	4.60	[illegible]	691.1	[illegible]	11.50	1972	3.41	34.02	717.5	4.44	11.36
					0.2	CS	2.34	25.47	741.7	4.21	11.23	1975	2.87	27.81	694.9	4.99	11.87
						HT	2.58	19.46	608.9	6.72	13.72	HOT ST	2.37	20.90	673.4	5.29	12.44
						HS	2.18	22.20	733.8	3.97	11.46						
95	71	OLDS	CUTL	350	100	CT	5.94	25.13	600.5	4.26	12.29	1972	4.41	43.20	610.4	3.46	12.48
					1.5	CS	2.99	82.20	619.4	2.74	13.07	1975	3.41	34.96	587.3	3.52	13.39
						HT	2.28	[illegible]	552.7	4.47	15.13	HOT ST	2.51	21.72	568.4	3.25	14.54
						HS	2.71	[illegible]	[illegible]	2.14	14.05						
96	71	OLDS	TORO	455	800	CT	3.69	29.50	[illegible]	[illegible]	10.56	1972	3.24	30.27	788.4	4.00	10.77
					0.5	CS	2.83	31.93	751.2	2.68	10.96	1975	3.15	27.49	756.9	4.04	11.24
						HT	[illegible]	11.24	675.0	5.59	12.43	HOT ST	3.50	31.94	696.6	3.85	11.71
						HS	[illegible]	34.52	716.5	2.25	11.11						
97	71	PLYM	DUST	225	200	CT	[illegible]	59.67	347.7	4.11	19.26	1972	5.35	61.52	347.2	3.43	17.26
					7.0	CS	4.70	[illegible]	346.8	2.79	19.27	1975	4.54	57.44	336.1	3.28	19.95
						HT	4.10	52.25	307.5	3.60	22.04	HOT ST	[illegible]	56.65	330.3	2.99	20.50
						HS	4.40	61.06	351.2	2.41	19.25						
98	71	PLYM	SATE	318	150	CT	4.09	[illegible]	593.6	5.24	13.17	1972	[illegible]	39.14	563.7	5.51	[illegible]
					1.8	CS	3.74	[illegible]	593.8	5.11	13.31	1975	3.74	33.45	575.9	5.74	13.37
						HT	3.47	21.21	528.1	[illegible]	15.51	HOT ST	[illegible]	25.31	550.3	5.83	14.52
						HS	3.81	21.18	[illegible]	4.84	13.72						
99	71	PONT	FIRE	350	40[illegible]	CT	7.77	[illegible]	[illegible]	[illegible]	11.16	1972	9.00	123.84	535.0	3.55	[illegible]
					[illegible]	CT	10.12	[illegible]	505.1	[illegible]	[illegible]	1975	8.50	91.59	515.7	3.82	12.92
						HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	8.41	83.50	485.6	3.84	13.59
						HS	10.86	114.7[illegible]	[illegible]	[illegible]	12.53						
100	71	PONT	CATA	400	750	CT	3.35	[illegible]	[illegible]	3.12	[illegible]	1972	1.40	[illegible]	758.0	2.81	10.81
					3.1	CS	1.54	15.70	717.9	2.25	11.88	1975	1.78	[illegible]	715.3	2.74	11.70
						HT	1.80	11.41	[illegible]	[illegible]	[illegible]	HOT ST	1.51	[illegible]	628.4	2.56	13.54
						HS	1.25	[illegible]	[illegible]	[illegible]	[illegible]						

* EVAP T[illegible] [illegible] MODALS; M = MODAL; BLANK = NONE; RE = REPLICATE EVAP TEST

APPENDIX [illegible]

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

[illegible]

VEH *	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
101	71	TOYO	CORO	71	100	CT	3.04	[illegible]	317.7	5.07	23.39	1972	3.31	48.99	298.3	3.69	23.01
					2.2	CS	3.57	62.96	290.5	2.42	22.72	1975	3.11	46.60	286.9	3.54	23.99
						HT	2.38	25.02	275.9	4.50	27.50	HOT ST	2.83	38.02	282.0	3.53	25.36
						HS	2.85	49.76	287.6	2.63	23.56						
102	71	VOLK	BEET	97	130	CT	2.71	37.72	[illegible]	3.71	23.93	1972	2.55	42.40	323.7	2.68	22.28
					4.5	CS	2.40	46.66	342.[illegible]	2.11	20.96	1975	2.42	41.03	319.9	2.76	22.65
						HT	2.23	32.71	289.2	2.28	25.54	HOT ST	2.27	40.02	325.8	2.85	22.43
						HS	2.27	48.71	359.1	2.16	20.18						
103	70	BUIC	ELEC	455	220	CT	6.87	147.45	710.5	8.08	9.21	1972	5.95	122.81	694.2	6.18	7.80
					6.8	CS	5.11	100.19	679.2	4.42	10.41	1975	5.17	97.93	674.6	6.76	10.50
						HT	4.43	58.24	638.8	10.21	11.98	HOT ST	4.79	81.85	691.7	7.22	10.75
						HS	5.12	109.37	721.1	4.15	9.83						
104	70	CHEV	IMPA	350	110	CT	10.22	79.23	500.5	3.61	13.38	1972	7.55	72.87	518.6	3.71	13.51
					2.4	CS	5.11	37.04	529.1	3.60	13.34	1975	6.07	65.59	519.8	4.28	13.83
						HT	4.00	52.53	511.1	5.72	14.58	HOT ST	4.74	56.23	510.9	4.55	11.45
						HS	4.69	59.61	510.[illegible]	3.48	14.34						
105	70	CHEV	CHEV	307	200	CT	7.34	1[illegible].55	478.[illegible]	4.57	12.72	1972	6.36	73.17	476.3	3.64	13.60
					3.5	CS	3.91	65.35	474.2	2.79	14.97	1975	5.37	71.23	467.8	3.70	14.88
						HT	4.29	42.03	447.5	4.80	16.84	HOT ST	4.65	50.46	452.5	3.65	16.24
						HS	4.98	58.20	457.2	2.60	15.73						
106	70	CHEV	KING	350	310	CT	4.00	52.30	653.5	6.55	11.86	1972	3.84	56.28	651.2	5.27	11.81
					6.6	CS	3.70	59.[illegible]	640.0	4.09	11.76	1975	3.68	50.83	632.0	5.37	12.27
						HT	3.38	32.33	583.1	6.92	13.77	HOT ST	3.55	45.86	601.9	5.43	12.96
						HS	3.70	58.27	619.2	4.[illegible]	12.29						
107	70	CHEV	CHEV	350	290	CT	6.09	146.15	497.9	2.90	11.89	1972	5.45	120.82	481.4	2.65	12.89
					7.0	CS	4.87	97.57	466.2	2.41	13.98	1975	5.11	95.79	467.3	3.05	13.96
						HT	4.82	54.41	453.7	4.37	16.01	HOT ST	4.57	72.13	466.1	3.50	14.95
						HS	4.35	88.41	477.5	2.70	14.09						
108	70	CHEV	IMPA	350	100	CT	13.58	191.42	517.4	1.64	10.50	1972	8.69	102.81	536.9	4.18	12.23
					3.5	CS	4.12	30.64	554.8	3.76	14.11	1975	5.84	57.78	530.2	4.72	13.88
						HT	3.22	16.36	492.7	6.65	15.80	HOT ST	3.14	20.36	510.3	5.03	16.05
						HS	3.63	24.02	521.5	3.57	15.42						
109	70	CHEV	IMPA	400	150	CT	3.36	51.[illegible]	56[illegible].7	3.26	13.61	1972	3.19	38.16	556.0	2.65	14.18
					1.5	CS	3.04	25.82	551.8	2.08	14.75	1975	3.06	27.94	535.0	2.58	15.08
						HT	2.86	14.10	483.7	3.01	17.24	HOT ST	3.01	15.38	484.8	2.13	17.81
						HS	3.14	18.[illegible]	447.4	1.32	18.37						
110	70	DODG	CHAR	383	200	CT	13.50	119.23	530.6	4.41	11.[illegible]	1972	8.70	105.40	524.1	4.11	12.38
					8.0	CS	4.30	92.70	518.1	3.83	13.11	1975	5.76	82.03	518.8	4.51	13.37
						HT	2.70	33.59	511.4	5.89	15.50	HOT ST	3.16	55.58	515.7	5.05	14.48
						HS	3.57	75.77	519.7	4.28	13.66						

* E = EVAP TEST & MODALS. M = MODALS. BLANK = NONE. RE = REPLICATE EVAP TEST

[illegible] FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

[illegible]

					IHP	TEST						FTP					
VEH #	YR	MAKE	MODL	CID	[illegible]	TYPE	HC	CO	CO2	NOXC	MPG	TYPE	HC	CO	CO2	NOXC	MPG
111	[illegible]	FORD	MAVE	200	[illegible]	CT	4.40	21.41	[illegible]	4.38	19.91	1972	3.46	50.63	342.3	3.43	20.51
					8.4	CS	2.95	[illegible]	[illegible]	2.56	21.10	1975	3.05	43.44	338.9	3.50	21.30
						HT	[illegible]	[illegible]	[illegible]	4.58	22.41	HOT ST	2.90	[illegible]	343.6	3.65	21.44
						HS	[illegible]	[illegible]	[illegible]	2.80	20.25						
112	[illegible]	FORD	MUST	[illegible]	[illegible]	CT	[illegible]	[illegible]	[illegible]	0.71	11.62	1972	7.03	202.58	401.1	0.58	11.97
					5.1	CS	[illegible]	180.81	[illegible]	0.46	12.31	1975	5.75	[illegible]	[illegible]	1.06	13.02
						HT	4.04	[illegible]	[illegible]	[illegible]	16.30	HOT ST	7.87	50.33	[illegible]	1.68	15.35
						HS	[illegible]	[illegible]	441.0	0.90	14.56						
113	70	FORD	LTD	351	55	CT	[illegible]	[illegible]	419.1	1.65	11.87	1972	5.56	108.68	526.6	2.38	12.42
					6.1	CS	[illegible]	[illegible]	[illegible]	[illegible]	12.96	1975	4.08	62.47	556.2	3.30	13.26
						HT	[illegible]	[illegible]	[illegible]	5.03	15.30	HOT ST	3.11	23.60	558.2	4.04	14.67
						HS	[illegible]	[illegible]	[illegible]	3.13	14.14						
114	70	FORD	TORI	351	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	13.43	1972	3.66	67.36	586.4	3.46	12.61
					[illegible]	CS	[illegible]	[illegible]	614.9	2.75	11.95	1975	3.44	61.35	578.0	3.83	12.96
						HT	[illegible]	[illegible]	524.5	5.82	14.97	HOT ST	[illegible]	53.82	555.0	4.09	[illegible]
						HS	[illegible]	[illegible]	593.1	2.50	12.64						
115	70	FORD	LTD	390	200	CT	4.75	[illegible]	[illegible]	[illegible]	11.11	1972	4.21	79.09	657.1	2.55	11.17
					[illegible]	CS	[illegible]	[illegible]	672.0	2.18	11.23	1975	3.82	65.57	641.3	2.58	11.74
						HT	[illegible]	41.28	[illegible]	[illegible]	13.48	HOT ST	[illegible]	48.59	617.5	2.60	[illegible]
						HS	2.47	[illegible]	[illegible]	2.18	11.60						
116	70	MERC	MARQ	429	140	CT	11.74	[illegible]	541.1	[illegible]	7.59	1972	7.50	200.81	648.5	3.07	[illegible]
					[illegible]	CS	[illegible]	[illegible]	746.8	5.25	10.82	1975	5.07	104.99	653.3	4.36	10.34
						HT	[illegible]	25.92	[illegible]	5.43	14.61	HOT ST	2.77	24.09	646.2	5.72	12.81
						HS	[illegible]	22.41	[illegible]	5.98	11.51						
117	[illegible]	OLDS	[illegible]	[illegible]	[illegible]	CT	4.44	117.18	[illegible]	[illegible]	9.43	1972	3.91	87.98	724.0	4.42	10.13
					[illegible]	CS	[illegible]	[illegible]	[illegible]	4.02	10.87	1975	3.55	65.54	686.6	4.24	11.09
						HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	2.95	42.90	607.8	[illegible]	[illegible]
						HS	[illegible]	[illegible]	[illegible]	[illegible]	12.62						
118	[illegible]	OLDS	NINE	455	150	CT	[illegible]	[illegible]	[illegible]	4.04	9.97	1972	[illegible]	[illegible]	677.9	3.01	10.54
					[illegible]	CS	[illegible]	[illegible]	[illegible]	2.07	11.11	1975	3.61	86.99	647.5	2.88	11.16
						HT	[illegible]	97.71	610.3	3.54	12.37	HOT ST	3.22	75.61	634.2	2.85	11.63
						HS	[illegible]	[illegible]	[illegible]	2.21	11.02						
119	[illegible]	PLYM	FUR	[illegible]	[illegible]	CT	4.58	[illegible]	[illegible]	[illegible]	[illegible]	1972	3.95	66.28	[illegible]	5.35	13.74
					[illegible]	CS	[illegible]	[illegible]	[illegible]	[illegible]	15.00	1975	3.48	51.99	506.9	5.57	14.81
						HT	[illegible]	[illegible]	[illegible]	6.58	[illegible]	HOT ST	3.12	37.82	482.8	5.72	16.08
						HS	[illegible]	45.41	[illegible]	4.72	15.69						
120	[illegible]	PLYM	DUST	[illegible]	[illegible]	CT	4.11	[illegible]	504.9	[illegible]	14.03	1972	[illegible]	72.49	477.4	3.05	14.73
					[illegible]	CS	[illegible]	[illegible]	452.4	2.36	15.45	1975	3.11	62.29	456.3	[illegible]	15.73
						HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	2.68	52.45	[illegible]	[illegible]	17.10
						HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						

[illegible] EVAP TEST [illegible] MODAL [illegible] NONE RE = REPLICATE EVAP TEST

APPENDIX [illegible]

[illegible] 1975 FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

[illegible] UNITS

VEH	[illegible]	YR	MAKE	MODEL	CID	[illegible]	TEST TYPE	HC	CO	[illegible]	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
121		7[illegible]	PONT	LEMA	35[illegible]	[illegible]	CT	5.72	[illegible]	[illegible]	5.08	11.81	1972	[illegible]	[illegible]	[illegible]	[illegible]	12.5[illegible]
						[illegible]	CS	4.71	[illegible]	542.5	[illegible]	[illegible]	1975	4.[illegible]	[illegible]	551.5	[illegible]	[illegible]
							HT	[illegible]	[illegible]	524.3	4.[illegible]	[illegible]	HOT ST	[illegible]	55.[illegible]	[illegible]	[illegible]	14.84
							HS	4.5[illegible]	71.52	474.4	[illegible]	14.[illegible]						
[illegible]		[illegible]	PONT	[illegible]	400	[illegible]	[illegible]	[illegible]	77.50	[illegible]11.4	[illegible]	11.32	1972	5.50	[illegible]	595.[illegible]	[illegible]	11.[illegible]
						[illegible]	[illegible]	5.44	104.[illegible]	501.[illegible]	[illegible]	11.64	1975	[illegible]	[illegible]	571.[illegible]	[illegible]	[illegible]
							HT	[illegible]	[illegible]	526.[illegible]	[illegible]	14.15	HOT ST	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
							[illegible]	[illegible]	101.4[illegible]	[illegible]	[illegible]	12.24						
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.11	26.81	1972	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27.32	1975	3.1[illegible]	21.5[illegible]	268.[illegible]	[illegible]	28.41
							HT	[illegible]	14.1[illegible]	244.[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	[illegible]	245.5	[illegible]	[illegible]
							HS	[illegible]	[illegible]	246.[illegible]	[illegible]	[illegible]						
124		[illegible]	[illegible]	[illegible]	[illegible]	140	CT	3.87	[illegible]	281.8	1.94	[illegible]	1972	[illegible]	[illegible]	[illegible]	[illegible]	21.80
							CS	[illegible]	50.[illegible]	331.0	1.39	21.11	1975	[illegible]	[illegible]	[illegible]	1.82	[illegible]
							HT	[illegible]	4[illegible].47	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	[illegible]	329.0	1.94	[illegible]
							[illegible]	[illegible]	[illegible]	[illegible]4.0	2.05	19.55						
125		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.47	[illegible]	[illegible]	[illegible]	[illegible]	1972	[illegible]	50.2[illegible]	522.7	[illegible]	14.48
						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15.[illegible]	1975	[illegible]	[illegible]	509.5	[illegible]	15.28
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	[illegible]	485.[illegible]	[illegible]	16.4[illegible]
							HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
126		[illegible]	BUIC	[illegible]	35[illegible]	[illegible]	[illegible]	5.01	108.00	[illegible]	[illegible]	[illegible]	1972	4.41	[illegible]	524.8	3.81	1[illegible].84
						[illegible]	[illegible]	[illegible]	87.1[illegible]	51[illegible].1	[illegible]	1[illegible].41	1975	[illegible]	7[illegible].94	50[illegible].6	4.0[illegible]	13.70
							HT	[illegible]	[illegible]	482.0	5.60	15.[illegible]	HOT ST	[illegible]	84.21	[illegible]2.4	4.31	14.6[illegible]
							[illegible]	[illegible]	[illegible]	501.[illegible]	[illegible]	[illegible]						
127		[illegible]	CHEV	NOVA	250	140	CT	4.[illegible]	[illegible]	47[illegible].8	[illegible]	14.12	1972	[illegible]	71.[illegible]	456.5	4.[illegible]	15.27
						5.2	CS	3.14	5[illegible].95	435.1	[illegible]	1[illegible].51	1975	[illegible]	57.[illegible]	431.7	4.[illegible]	16.[illegible]
							HT	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible].57	HOT ST	[illegible]	[illegible]	403.[illegible]	4.76	18.15
							HS	3.12	60.68	416.4	[illegible]	17.[illegible]						
128		[illegible]	[illegible]	[illegible]	307	550	CT	[illegible]	11[illegible]	51[illegible].5	[illegible]	1[illegible].47	1972	5.[illegible]	[illegible]	495.5	[illegible]	[illegible]
						[illegible]	[illegible]	[illegible]	[illegible].45	480.[illegible]	5.[illegible]	14.0[illegible]	1975	5.[illegible]	[illegible]	47[illegible].5	[illegible]	14.04
							HT	4.71	[illegible]	453.6	7.96	15.56	HOT ST	4.76	74.[illegible]	454.0	[illegible]	15.1[illegible]
							HS	4.[illegible]	[illegible]	454.3	4.[illegible]	14.7[illegible]						
[illegible]		[illegible]	CHEV	[illegible]	3[illegible]	400	CT	5.86	[illegible]	[illegible]	5.34	14.70	1972	5.[illegible]	[illegible]	465.7	[illegible]	15.0[illegible]
						[illegible].5	[illegible]	5.70	[illegible]	45[illegible].1	[illegible]	15.47	1975	5.4[illegible]	[illegible]	453.4	4.4[illegible]	15.[illegible]
							HT	4.[illegible]	4[illegible].12	435.[illegible]	5.50	17.18	HOT ST	5.1[illegible]	5[illegible].10	43[illegible].0	4.4[illegible]	16.43
							HS	5.41	[illegible]	44[illegible].4	[illegible]	15.80						
[illegible]		[illegible]	CHEV	TOWN	35[illegible]	170	CT	[illegible]	[illegible].04	757.[illegible]	[illegible]	[illegible]	1972	5.0[illegible]	[illegible]	764.4	[illegible]	[illegible]
						[illegible]	[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	[illegible]	1975	[illegible]	[illegible]	744.0	[illegible]	10.28
							HT	[illegible]	[illegible]	[illegible]	[illegible]	11.[illegible]	HOT ST	[illegible]	[illegible]	[illegible]	2.88	11.4[illegible]
							HS	[illegible]	75.[illegible]	[illegible]	[illegible]	11.1[illegible]						

* E = EVAP TEST & MODALS, M = MODALS, BLANK = NONE, RE = REPLICATE EVAP TEST

[illegible]

[illegible] FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

[illegible]

[illegible]	[illegible]	MAKE	MODL	CID	[illegible]	[illegible]	HC	[illegible]	[illegible]	NOX	MPG	FTP TYPE	HC	CO	CO2	NOX	MPG
131	[illegible]	CHEV	TOWN	[illegible]	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	11.11	1972	[illegible]	[illegible]	[illegible]	3.37	11.44
						CS	[illegible]	[illegible]	458.5	2.84	[illegible]	1975	[illegible]	[illegible]	[illegible]	[illegible]	12.20
						HT	[illegible]	[illegible]	[illegible]	[illegible]	14.27	HOT ST	[illegible]	82.06	442.3	[illegible]	13.57
						HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
132	[illegible]	CHEV	IMPA	[illegible]	[illegible]	CT	[illegible]	[illegible]	549.5	[illegible]	10.38	1972	[illegible]	132.51	550.3	4.45	11.61
						CS	[illegible]	[illegible]	516.3	4.22	13.03	1975	[illegible]	[illegible]	527.2	5.31	12.58
						HT	[illegible]	[illegible]	[illegible]	7.81	13.85	HOT ST	[illegible]	72.08	[illegible]	[illegible]	13.64
						HS	[illegible]	[illegible]	[illegible]	3.84	13.43						
133	[illegible]	CHRY	NEWP	383	[illegible]	CT	[illegible]	[illegible]	561.0	[illegible]	[illegible]	1972	4.03	57.31	512.8	4.15	14.34
						CS	[illegible]	[illegible]	466.7	2.87	15.59	1975	3.61	50.08	477.5	4.48	15.11
						HT	[illegible]	[illegible]	504.8	6.60	15.94	HOT ST	3.34	36.26	519.5	5.09	15.12
						HS	[illegible]	44.37	[illegible]	3.71	14.44						
134	[illegible]	DODG	DART	225	[illegible]	CT	10.48	[illegible]	[illegible]	4.15	[illegible]	1972	[illegible]	[illegible]	341.0	4.35	17.15
						CS	[illegible]	[illegible]	[illegible]	4.54	19.75	1975	5.45	[illegible]	342.8	[illegible]	18.85
						HT	[illegible]	[illegible]	[illegible]	5.88	21.11	HOT ST	[illegible]	50.04	332.7	[illegible]	20.97
						HS	[illegible]	[illegible]	[illegible]	[illegible]	20.85						
135	[illegible]	FORD	FAIR	302	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1972	4.54	38.20	464.0	3.34	16.48
						CS	4.19	[illegible]	[illegible]	[illegible]	15.35	1975	4.21	[illegible]	491.3	[illegible]	[illegible]
						HT	[illegible]	[illegible]	[illegible]	5.36	[illegible]	HOT ST	[illegible]	[illegible]	519.1	4.27	15.51
						HS	[illegible]	[illegible]	[illegible]	[illegible]	15.41						
136	[illegible]	FORD	FAIR	302	[illegible]	CT	[illegible]	[illegible]	[illegible]	4.14	14.55	1972	[illegible]	[illegible]	508.1	[illegible]	[illegible]
						CS	[illegible]	[illegible]	[illegible]	2.94	[illegible]	1975	[illegible]	[illegible]	491.1	[illegible]	15.50
						HT	[illegible]	[illegible]	[illegible]	[illegible]	16.65	HOT ST	4.26	[illegible]	474.4	3.41	16.12
						HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
137	[illegible]	FORD	RANC	351	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	11.57	1972	4.12	[illegible]	[illegible]	5.43	12.13
						CS	[illegible]	[illegible]	[illegible]	2.88	12.69	1975	3.64	[illegible]	597.1	5.58	[illegible]
						HT	[illegible]	[illegible]	[illegible]	6.58	[illegible]	HOT ST	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
						HS	[illegible]	[illegible]	[illegible]	[illegible]	13.10						
138	[illegible]	FORD	MUST	351	200	CT	[illegible]	24.64	505.5	5.55	[illegible]	1972	3.37	[illegible]	541.3	[illegible]	14.84
						CS	2.81	34.02	528.2	[illegible]	15.03	1975	3.01	27.30	520.2	4.65	15.51
						HT	2.67	[illegible]	478.1	5.45	17.32	HOT ST	2.73	22.08	496.2	4.28	16.45
						HS	[illegible]	[illegible]	[illegible]	[illegible]	15.73						
139	[illegible]	FORD	GALA	[illegible]	[illegible]	CT	[illegible]	[illegible]	541.5	1.18	9.50	1972	[illegible]	190.33	531.7	1.48	[illegible]
						CS	[illegible]	[illegible]	[illegible]	[illegible]	10.67	1975	[illegible]	163.96	550.0	1.63	10.76
						HT	[illegible]	137.59	[illegible]	[illegible]	12.15	HOT ST	4.70	124.13	[illegible]	1.79	11.88
						HS	4.41	[illegible]	[illegible]	[illegible]	[illegible]						
140	[illegible]	MERC	[illegible]	[illegible]	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1972	[illegible]	66.57	[illegible]	[illegible]	11.64
						CS	4.34	[illegible]	[illegible]	5.32	12.54	1975	4.52	40.55	[illegible]	6.72	12.59
						HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	[illegible]	603.3	7.02	12.74
						HS	[illegible]	[illegible]	[illegible]	5.38	[illegible]						

[illegible] EVAP TEST [illegible] H = MODAL [illegible] = NONE RE = REPLICATE EVAP TEST

APPENDIX

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

[illegible] UNITS

[illegible]	ID	MAKE	MODL	CID	INE. IWT	TEST TYPE	HC	CO	CO2	NOXC	MPG	FTP TYPE	HC	CO	CO2	NOX	MPG
141	[illegible]	OLDS	TORO	455	150 4.5	CT	5.26	[illegible]	695.1	4.06	10.35	1972	[illegible]	110.58	656.5	[illegible]	[illegible]
						CS	4.74	124.57	621.0	2.10	10.63	1975	4.51	107.30	604.2	2.74	[illegible]
						HT	3.52	81.16	503.6	2.98	12.82	HOT ST	3.84	97.66	551.1	2.48	[illegible]
						HS	4.13	112.80	544.7	2.02	11.31						
142	[illegible]	PLYM	FURY	318	[illegible]	CT	[illegible]	57.57	480.5	[illegible]	15.24	1972	[illegible]	42.67	468.5	[illegible]	[illegible]
						CS	[illegible]	[illegible]	457.5	[illegible]	17.33	1975	2.96	32.97	451.2	3.82	17.31
						HT	2.63	22.00	417.2	4.44	19.30	HOT ST	2.92	20.29	441.3	3.75	18.01
						HS	3.19	30.20	465.1	3.12	16.98						
143	[illegible]	FONT	LEMA	350	260 4.2	CT	[illegible]	85.87	549.7	5.96	12.67	1972	5.04	89.49	520.4	[illegible]	12.96
						CS	5.00	[illegible]	506.9	4.68	13.24	1975	4.83	78.60	509.4	5.64	[illegible]
						HT	4.33	49.62	479.9	7.22	15.53	HOT ST	4.45	65.49	482.4	4.28	[illegible]
						HS	4.57	60.06	454.7	1.78	14.21						
144	[illegible]	FONT	EXEC	400	[illegible]	CT	5.94	[illegible]	[illegible]	6.29	10.70	1972	5.62	86.30	657.3	[illegible]	[illegible]
						CS	[illegible]	[illegible]	[illegible]	5.21	11.20	1975	5.18	71.83	641.9	5.53	11.51
						HT	4.34	39.38	609.6	5.55	12.96	HOT ST	4.87	58.57	616.1	5.01	12.27
						HS	5.36	76.19	622.1	4.51	11.70						
145	[illegible]	VOLK	BEET	91	2000 7.0	CT	[illegible]	[illegible]	191.1	1.17	22.56	1972	18.07	131.36	185.2	1.01	[illegible]
						CS	22.56	158.06	179.8	0.59	17.76	1975	19.09	131.90	185.2	0.97	19.74
						HT	13.25	104.25	190.8	1.31	22.38	HOT ST	18.51	131.35	184.7	0.87	[illegible]
						HS	23.35	156.23	179.0	0.51	17.81						
146	[illegible]	AMER	AMER	232	160 4.0	CT	5.08	65.65	305.3	1.77	20.91	1972	4.90	60.09	337.9	1.82	19.82
						CS	4.73	54.78	367.8	1.86	19.92	1975	4.83	57.10	353.1	2.11	19.79
						HT	4.83	54.72	361.1	3.02	19.20	HOT ST	4.57	50.78	360.5	2.53	19.51
						HS	4.27	47.10	360.8	2.06	19.80						
147	[illegible]	BUIC	ELEC	[illegible]	150 4.0	CT	5.26	129.17	676.2	2.71	9.91	1972	4.99	133.30	702.5	2.19	9.57
						CS	4.65	137.10	724.8	1.53	9.28	1975	4.91	124.25	690.6	2.11	9.85
						HT	[illegible]	95.57	632.5	2.62	11.11	HOT ST	5.20	116.85	643.8	2.03	10.28
						HS	5.30	136.02	692.5	1.49	9.62						
148	[illegible]	CADI	DEVI	472	[illegible]	CT	5.02	102.39	695.2	5.75	10.16	1972	3.89	82.11	698.1	4.72	[illegible]
						CS	2.86	62.57	700.8	3.76	10.99	1975	3.15	63.45	683.3	4.44	11.20
						HT	2.30	34.99	641.0	4.73	12.63	HOT ST	1.95	32.09	691.6	3.45	11.87
						HS	1.62	29.43	738.0	2.28	11.25						
149	[illegible]	CHEV	NOVA	[illegible]	[illegible] 4.2	CT	[illegible]	54.40	435.3	5.20	14.67	1972	4.87	63.90	406.0	4.57	17.01
						CS	[illegible]	[illegible]	[illegible]	3.91	[illegible]	1975	3.83	46.53	392.0	[illegible]	[illegible]
						HT	2.77	30.81	[illegible]	5.52	20.13	HOT ST	2.95	33.29	371.4	4.85	19.57
						HS	[illegible]	35.58	378.5	4.23	19.12						
150	[illegible]	[illegible]	[illegible]	[illegible]	200 [illegible]	CT	[illegible]	151.13	[illegible]	[illegible]	11.46	1972	7.13	122.81	486.5	[illegible]	12.65
						[illegible]	[illegible]	[illegible]	475.7	3.11	13.77	1975	6.01	87.42	173.3	4.15	14.10
						HT	[illegible]	[illegible]	490.0	3.42	17.43	HOT ST	4.41	33.78	452.8	5.41	[illegible]
						HS	[illegible]	[illegible]	455.1	4.18*	16.77						

* E = EVAP TEST S MODALS B [illegible] BLANK = NONE, RE = REPLICATE EVAP TEST

APPENDIX [illegible]

[illegible] TEST PROCEDURE RESULTS
FOR INDIVIDUAL VEHICLES

([illegible])

[illegible]	[illegible]	MAKE	MODEL	CID	[illegible]	[illegible]	HC	CO	CO2	NOX	MPG	ETI TYPE	HC	CO	CO2	NOX	MPG
151	[illegible]	CHEV	IMPA	327	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	12.47	1972	[illegible]	118.52	[illegible]	[illegible]	[illegible]
					[illegible]	CS	[illegible]	115.[illegible]	[illegible]	[illegible]	12.91	1975	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
						HT	[illegible]	[illegible]	[illegible]	5.42	15.57	HOT ST	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
						HS	[illegible]	[illegible]	[illegible]	2.50	[illegible]						
152	68	CHEV	BELA	307	[illegible]	CT	[illegible]	[illegible]	446.0	3.55	16.14	1972	[illegible]	60.10	418.8	3.01	[illegible]
					[illegible]	CS	[illegible]	[illegible]	[illegible]	2.52	17.07	1975	[illegible]	55.94	401.7	3.04	17.41
						HT	5.14	39.00	384.1	3.65	16.23	HOT ST	[illegible]	51.83	[illegible]	3.04	18.35
						HS	[illegible]	47.45	376.1	2.48	17.61						
153	68	CHEV	IMPA	327	225	CT	15.87	270.14	506.4	0.92	[illegible]	1972	[illegible]	[illegible]	553.9	[illegible]	[illegible]
					3.4	CS	13.89	259.01	597.5	[illegible]	8.84	1975	13.84	247.36	541.1	0.82	[illegible]
						HT	[illegible]	190.[illegible]	467.0	0.60	11.17	HOT ST	11.87	225.17	532.5	[illegible]	[illegible]
						HS	12.65	256.56	552.7	0.68	8.52						
154	68	DODG	CHAR	383	100	CT	5.84	[illegible]	501.0	[illegible]	11.17	1972	5.13	88.73	547.1	4.33	12.27
					4.4	CS	4.98	90.20	545.1	4.30	13.54	1975	4.95	72.27	530.8	4.52	13.45
						HT	4.14	57.43	457.9	5.06	15.73	HOT ST	4.17	65.84	456.0	[illegible]	15.46
						HS	4.77	71.72	454.2	[illegible]	15.25						
155	68	FORD	MUST	200	220	CT	4.60	73.37	[illegible]	5.49	17.61	1972	4.31	82.75	[illegible]	[illegible]	18.01
					4	CS	4.03	91.07	[illegible]	[illegible]	18.29	1975	4.11	76.20	345.5	4.02	18.56
						HT	[illegible]	[illegible]	[illegible]	[illegible]	19.71	HOT ST	[illegible]	[illegible]	[illegible]	4.14	[illegible]
						HS	2.66	80.85	391.8	2.28	16.85						
156	68	FORD	MUST	289	425	CT	[illegible]	[illegible]	[illegible]	5.64	[illegible]	1972	5.72	60.75	446.0	[illegible]	15.88
					9.2	CS	5.70	56.87	427.0	5.27	[illegible]	1975	[illegible]	51.07	430.0	4.49	[illegible]
						HT	4.92	50.62	[illegible]	[illegible]	18.84	HOT ST	5.35	41.33	430.3	4.75	[illegible]
						HS	5.74	51.71	[illegible]	[illegible]	[illegible]						
157	68	FORD	TORI	302	100	CT	5.75	81.53	[illegible]	[illegible]	13.16	1972	4.81	[illegible]	530.3	[illegible]	[illegible]
					4.5	CS	[illegible]	[illegible]	545.9	[illegible]	[illegible]	1975	4.45	42.62	514.5	2.49	14.91
						HT	4.42	[illegible]	455.5	[illegible]	17.17	HOT ST	[illegible]	[illegible]	457.0	2.76	17.53
						HS	[illegible]	[illegible]	462.3	[illegible]	17.90						
158	68	FORD	GALA	390	[illegible]	CT	[illegible]	[illegible]	784.1	4.25	[illegible]	1972	3.81	65.75	734.4	3.56	10.44
					[illegible]	CS	[illegible]	[illegible]	[illegible]	[illegible]	11.93	1975	[illegible]	44.70	690.4	3.63	11.52
						HT	[illegible]	27.15	[illegible]	[illegible]	[illegible]	HOT ST	3.16	30.35	658.8	[illegible]	12.39
						HS	[illegible]	[illegible]	[illegible]	[illegible]	11.77						
159	68	MERC	COUG	302	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	15.15	1972	[illegible]	[illegible]	514.4	5.29	15.80
					[illegible]	CS	[illegible]	[illegible]	[illegible]	5.84	[illegible]	1975	3.35	20.11	496.2	5.24	16.49
						HT	[illegible]	[illegible]	[illegible]	[illegible]	17.75	HOT ST	[illegible]	15.72	181.3	5.18	17.22
						HS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
160	[illegible]	OLDS	DELM	350	450	CT	[illegible]	[illegible]	534.5	2.35	10.50	1972	[illegible]	155.13	497.0	2.08	11.53
					8.8	CS	5.70	[illegible]	[illegible]	1.83	12.67	1975	[illegible]	121.73	483.2	2.20	12.75
						HT	4.45	[illegible]	454.0	2.82	15.44	HOT ST	[illegible]	92.98	466.2	2.20	14.14
						HS	[illegible]	115.[illegible]	[illegible]	[illegible]	[illegible]						

[illegible] EVAP TEST [illegible]

APPENDIX [illegible]

LISTING OF FEDERAL TEST PROCEDURE RESULTS
ON INDIVIDUAL VEHICLES

ST LOUIS

VEH #	YR	MAKE	MODL	CID	IHC ICO	TEST TYPE	HC	CO	CO2	NOX	MPG	FTP TYPE	HC	CO	CO2	NOXC	MPG
161	66	PLYM	FURY	318	80	CT	4.92	102.12	500.9	3.38	12.[illegible]	1972	[illegible]	[illegible]	507.2	3.94	14.55
					0.1	CS	2.63	17.43	505.6	4.31	14.31	1975	[illegible]	14.50	511.2	4.64	15.71
						HT	2.66	16.09	487.0	5.95	17.05	HOT ST	2.84	15.50	510.3	5.24	15.35
						HS	2.65	14.96	521.8	4.59	15.75						
162	68	PONT	CATA	400	240	CT	5.25	55.93	630.5	3.86	11.13	1972	4.53	68.75	611.9	3.54	12.07
					0.4	CS	3.87	45.72	594.7	3.24	13.09	1975	4.04	52.00	588.7	3.89	13.05
						HT	2.46	30.87	598.2	5.14	14.85	HOT ST	[illegible]	35.20	590.5	4.22	14.14
						HS	6.95	39.35	560.9	3.78	13.55						
163	69	VOLK	BEET	91	120	CT	3.08	46.20	293.9	3.64	24.14	1972	3.21	51.36	291.1	2.75	23.24
					2.8	CS	3.34	56.10	287.7	1.93	22.40	1975	3.17	50.58	284.9	2.63	23.71
						HT	2.92	43.70	280.8	3.20	23.22	HOT ST	3.16	49.53	275.1	2.52	24.48
						HS	3.39	54.41	288.9	1.90	21.08						
164	67	AMER	AMBA	232	230	CT	6.38	93.57	450.7	6.40	14.22	1972	8.94	113.56	405.5	4.35	14.50
					6.4	CS	7.45	131.95	363.7	2.47	14.77	1975	8.52	112.31	389.7	4.15	11.97
						HT	6.84	88.93	393.1	5.66	16.01	HOT ST	8.75	117.39	374.8	3.93	15.15
						HS	10.51	143.53	358.0	2.35	14.[illegible]						
165	67	DODG	LEGA	340	180	CT	10.68	264.56	452.8	0.87	[illegible]	1972	8.98	203.84	474.3	0.87	10.53
					4.6	CS	7.24	148.10	532.3	0.88	11.[illegible]	1975	7.72	184.52	492.9	1.10	11.44
						HT	6.25	120.42	447.7	1.67	13.52	HOT ST	6.14	123.02	461.4	1.23	13.17
						HS	6.04	125.40	474.0	0.82	17.83						
166	67	CADI	FLEE	429	150	CT	14.09	233.75	514.8	4.12	[illegible]	1972	10.22	190.79	554.0	3.05	[illegible]
					3.8	CS	6.67	151.27	524.2	2.04	11.[illegible]	1975	8.17	154.92	528.2	3.24	10.99
						HT	6.59	102.43	522.1	4.82	12.61	HOT ST	[illegible]	122.41	486.8	3.08	12.65
						HS	7.35	141.72	454.3	1.48	12.68						
167	67	CHEV	CAMA	250	150	CT	7.72	120.43	414.8	4.37	14.15	1972	5.78	[illegible]	376.5	3.41	15.16
					8.5	CS	4.39	96.95	379.8	2.50	[illegible]	1975	4.90	90.76	384.6	3.15	16.36
						HT	3.73	56.54	371.1	4.54	18.82	HOT ST	4.20	80.78	357.7	3.18	17.17
						HS	4.62	103.03	337.8	1.92	17.26						
168	67	CHEV	CAPR	283	400	CT	6.89	53.70	500.5	3.19	14.63	1972	[illegible]	[illegible]	486.9	5.29	14.11
					7.0	CS	7.63	68.76	474.3	4.46	14.64	1975	6.95	56.79	475.1	5.40	15.14
						HT	5.70	36.25	457.5	3.59	16.87	HOT ST	[illegible]	50.40	445.5	[illegible]	16.29
						HS	7.16	63.40	434.1	4.13	15.75						
169	67	[illegible]	IMPA	283	700	CT	10.61	107.21	456.7	3.22	13.47	1972	12.30	131.03	428.9	2.45	13.19
					[illegible]	CS	13.06	152.87	402.1	1.74	12.74	1975	12.00	128.79	413.9	2.55	13.57
						HT	[illegible]	[illegible]	405.7	3.58	15.05	HOT ST	11.22	124.07	396.0	2.61	11.17
						HS	12.99	147.07	388.8	1.73	13.44						
[illegible]	67	[illegible]	IMPA	327	500	CT	4.17	201.13	452.1	2.22	11.39	1972	[illegible]	[illegible]	433.0	2.48	11.22
					8.[illegible]	CS	10.80	[illegible]	425.1	2.72	11.0[illegible]	1975	[illegible]	[illegible]	432.6	2.41	11.49
						HT	7.77	133.50	430.2	2.63	13.35	HOT ST	9.02	174.54	412.6	1.79	12.41
						HS	10.07	212.21	396.5	0.96	11.65						

* E = EVAP TEST + MODALS, M = MODALS, BLANK = NONE, RE = REPLICATE EVAP TEST

VEH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NOXC	MPG	FTP TYPE	HC	[illegible]	CO2	NOXC	MPG
171			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1972	[illegible]	[illegible]	[illegible]	5.41	13.17
							[illegible]	4.2	[illegible]	[illegible]	[illegible]	14.15	1975	[illegible]	[illegible]	559.5	[illegible]	13.95
							HT	[illegible]	[illegible]	541.4	[illegible]	14.7	HOT ST	4	29.41	[illegible]	[illegible]	15.02
							HS	4.14	[illegible]	[illegible]	[illegible]	15.25						
172			DODG	CORO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13.92	[illegible]	[illegible]	26.52	528.7	[illegible]	15.18
						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16.59	[illegible]	[illegible]	[illegible]	507.2	[illegible]	16.29
							HT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	[illegible]	8.45	[illegible]	7.15	17.27
									[illegible]	[illegible]	[illegible]	17.46						
173			FORD	[illegible]	[illegible]	[illegible]	CT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1972	8.51	74.28	438.4	5.31	[illegible]
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.[illegible]	1975	[illegible]	50.47	[illegible]	5.26	16.07
							HT	[illegible]	[illegible]	[illegible]	[illegible]	16.84	HOT ST	7.41	60.55	392.2	[illegible]	17.18
							HS	[illegible]	[illegible]	[illegible]	1.44	18.22						
174			FORD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12.57	[illegible]	[illegible]	134.[illegible]	430.7	2.51	13.31
							[illegible]	[illegible]	[illegible]	[illegible]	1.4[illegible]	13.07	1975	7.71	131.25	[illegible]	[illegible]	13.87
							HT	[illegible]	[illegible]	[illegible]	[illegible]	15.[illegible]	HOT ST	7.04	120.53	384.2	2.34	14.65
							HS	[illegible]	140.52	[illegible]	1.51	15.81						
175			FORD	LTD	[illegible]	[illegible]	CT	[illegible]	[illegible]	[illegible]	5.30	10.51	1972	4.56	45.36	717.1	[illegible]	11.06
							[illegible]	[illegible]	[illegible]	[illegible]	4.20	11.81	1975	4.15	24.32	688.9	5.12	11.74
							HT	[illegible]	[illegible]	[illegible]	[illegible]	13.20	HOT ST	[illegible]	25.93	618.8	4.80	13.23
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
176			MERC	MONT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.74	1972	[illegible]	97.83	612.1	2.59	11.36
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.0[illegible]	1975	5.77	78.46	597.7	2.62	11.52
							HT	[illegible]	[illegible]	[illegible]	2.41	12.40	HOT ST	[illegible]	78.16	580.2	2.72	11.63
							HS	[illegible]	[illegible]	[illegible]	2.10	10.9[illegible]						
177			OLDS	DELT	[illegible]	[illegible]	CT	[illegible]	[illegible]	514.1	2.27	11.20	1972	[illegible]	98.79	483.3	2.21	13.50
							[illegible]	5.81	[illegible]	[illegible]	1.28	14.62	1975	5.76	80.09	458.1	2.20	14.48
							HT	5.12	[illegible]	[illegible]	[illegible]	14.11	HOT ST	[illegible]	70.25	521.7	2.17	[illegible]
							HS	[illegible]	[illegible]	[illegible]	1.25	13.90						
178			[illegible]	VALI	225	[illegible]	[illegible]	21.[illegible]	[illegible]	[illegible]	0.52	11.46	1972	12.44	187.75	301.7	0.60	13.87
							[illegible]	4.[illegible]	115.[illegible]	[illegible]	0.85	17.20	1975	8.21	153.13	304.3	0.69	15.34
							[illegible]	5.44	154.1[illegible]	[illegible]	[illegible]	18.13	HOT ST	5.20	13[illegible].17	[illegible]	0.71	16.53
							[illegible]	[illegible]	11[illegible]	[illegible]	0.73	[illegible]						
179			[illegible]	FIRE	[illegible]	[illegible]	[illegible]	4.[illegible]	[illegible]	[illegible]	5.52	13.46	1972	[illegible]	46.25	[illegible]	4.61	11.86
							[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	16.41	1975	4.41	27.37	485.2	[illegible]	15.51
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	HOT ST	3.10	26.98	461.6	5.03	17.17
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.08						
180			VOLK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.34	24.[illegible]	1972	5.55	[illegible]	211.8	1.26	26.35
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27.[illegible]	1975	5.25	[illegible]	208.1	1.15	27.43
							[illegible]	[illegible]	[illegible]	[illegible]	1.20	[illegible]	HOT ST	4.35	80.28	203.1	1.00	28.35
							[illegible]	[illegible]	[illegible]	[illegible]	0.81	27.76						

[illegible] MODE [illegible] REPLICATE FTP TEST

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	1	1974	BUIC	ELEC	455	2	1974	CHEV	MONT	350	3	1974	CHEV	IMPA	350
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	4.59	86.96	2197.6	7.86	3.78	3.81	30.75	1855.9	7.19	4.63	5.75	42.67	1936.2	13.45	4.39
2	3.17	2.61	563.9	0.46	15.35	1.15	17.43	691.1	0.73	12.29	1.83	12.22	598.6	0.52	14.23
3	4.53	45.96	1900.2	1.86	4.47	4.14	18.25	1307.1	2.12	6.58	5.94	33.69	1731.1	2.15	4.92
4	2.14	29.07	1310.9	2.48	6.51	1.78	16.81	1071.6	2.71	8.04	3.92	16.87	1110.5	5.57	7.72
5	1.69	17.94	840.6	3.33	10.15	1.33	11.40	776.6	3.56	11.11	2.58	14.33	844.7	6.14	10.14
6	2.29	6.86	443.9	0.78	19.21	0.59	3.80	326.8	0.58	26.52	2.32	5.73	287.1	1.22	29.25
7	3.59	113.20	1231.1	12.94	6.25	3.82	244.65	869.4	2.99	7.01	5.22	188.89	1168.1	8.47	5.99
8	2.50	4.03	406.9	2.91	21.07	0.61	3.22	382.4	1.35	22.80	1.17	5.40	226.6	0.86	37.16
9	2.48	51.52	1010.6	5.24	8.07	1.36	71.71	765.1	2.84	10.06	2.75	66.48	707.7	5.48	10.81
10	3.27	0.69	342.2	0.91	25.09	0.37	3.45	334.9	0.68	25.99	2.49	6.60	329.5	1.22	25.52
11	2.52	72.30	1195.6	6.74	6.74	1.33	62.24	1097.5	5.32	7.40	2.54	60.30	1068.7	9.64	7.58
12	6.60	0.84	272.9	1.40	30.07	0.52	5.47	361.4	0.59	23.88	4.01	8.46	364.1	2.71	22.75
13	2.26	57.39	1401.9	7.33	5.92	0.91	35.98	1201.3	5.98	7.04	2.58	60.67	1201.4	8.91	6.80
14	4.57	2.33	225.1	1.11	36.49	0.35	4.08	269.6	0.41	32.03	2.28	7.34	331.6	1.64	25.33
15	1.70	2.85	359.2	0.30	24.05	0.52	9.15	406.4	0.60	21.01	0.98	14.40	374.8	0.43	22.16
16	2.31	1.52	836.8	1.65	10.48	1.06	15.19	946.7	0.96	9.11	1.99	53.88	925.2	0.42	8.73
17	3.32	88.16	1451.1	5.26	5.55	1.38	38.13	1280.4	5.43	6.60	2.74	35.80	1241.1	10.06	6.80
18	2.74	3.47	264.6	0.35	31.84	0.54	6.53	364.1	0.45	23.60	1.99	9.18	320.8	0.68	25.99
19	2.64	76.50	1368.8	4.37	5.93	1.00	21.74	1131.9	5.56	7.59	3.24	51.45	1137.1	9.96	7.23
20	2.11	1.20	378.3	0.53	22.94	0.41	7.22	511.9	0.76	16.92	1.67	12.10	439.2	0.95	19.15
21	3.63	155.57	1529.9	9.31	4.97	3.72	205.76	1340.6	1.94	5.30	5.22	179.84	1412.7	10.14	5.18
22	4.28	7.39	333.7	0.90	24.73	0.40	6.15	391.6	0.89	22.05	2.33	9.07	323.0	0.64	25.76
23	3.82	49.54	1607.4	5.21	5.23	2.08	39.84	1356.6	1.08	6.22	5.15	61.74	1285.8	7.45	6.34
24	2.38	70.88	1087.3	4.69	7.36	1.21	57.09	772.0	4.46	10.25	2.84	57.27	823.6	6.44	9.62
25	4.62	2.98	255.7	0.86	32.27	0.41	3.88	285.0	0.62	30.35	1.86	6.91	297.8	0.95	28.22
26	2.59	4.76	610.8	0.57	14.17	0.71	12.40	737.6	1.33	11.69	1.50	31.81	587.3	0.73	13.82
27	2.17	63.69	1194.3	4.73	6.82	0.97	29.68	1069.7	5.64	7.93	2.78	46.15	971.3	9.03	8.43
28	3.71	2.91	286.6	0.57	29.30	0.40	4.99	325.3	0.58	26.54	2.64	10.48	298.3	0.65	27.47
29	3.84	49.77	1473.6	3.44	5.67	2.18	38.64	1325.8	3.19	6.37	5.75	79.07	1130.4	3.05	6.97
30	2.75	108.64	1169.6	5.06	6.58	4.96	171.02	851.7	3.14	7.81	3.54	89.98	975.5	7.39	7.87
31	3.86	5.33	250.7	1.27	32.71	0.97	4.43	243.5	0.52	35.00	2.03	7.74	255.6	1.04	32.37
32	2.69	0.0	642.1	0.52	13.64	0.74	9.88	659.7	0.69	13.10	2.28	29.98	617.7	0.27	13.21
ACT. BAG	2.56	32.14	796.7	2.93	10.38	1.03	30.09	684.3	2.22	12.08	2.17	30.00	670.9	3.53	17.24
CALC. BAG	2.38	27.99	750.0	2.72	11.07	1.04	29.40	662.7	2.26	12.46	2.10	30.06	654.5	3.75	12.53
33	0.35	0.67	122.3	0.10	71.30	0.06	0.74	166.8	0.10	52.79	0.30	2.04	135.1	0.04	63.73
34	3.75	8.33	1514.0	0.97	5.77	3.41	11.56	1869.4	1.38	4.68	4.12	38.91	1369.9	0.42	6.15
35	1.73	7.63	1091.0	1.12	8.01	0.64	6.72	1031.4	0.77	8.49	0.30	25.17	1122.6	0.48	7.63
36	1.32	4.55	717.8	0.84	12.17	0.67	3.85	664.8	0.53	13.19	0.29	23.16	698.1	0.26	12.07
37	1.43	5.82	686.9	0.44	12.67	0.89	4.20	438.7	0.68	19.80	1.07	5.62	435.8	0.50	19.81
38	1.17	4.20	531.9	0.71	16.37	0.66	2.80	414.0	0.83	19.70	1.05	7.24	423.1	1.22	20.27
39	0.90	4.31	494.4	1.61	17.61	0.40	5.18	492.1	2.09	17.70	0.70	5.53	479.9	3.16	18.08

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	4	1974	DODG	MAXI	360	5	1974	FORD	MAVE	302	6	1974	FORD	TORI	351
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	5.51	54.14	1175.4	22.95	6.94	7.29	154.89	[illegible]	3.48	5.38	3.36	55.14	1677.2	6.37	5.00
2	1.70	10.22	399.2	1.06	21.10	2.20	14.24	360.9	0.70	22.74	1.13	11.33	680.5	0.27	12.67
3	3.16	36.25	1158.1	6.27	7.19	6.17	145.47	[illegible]	2.28	6.71	1.88	31.30	1733.3	1.94	4.83
4	3.14	13.52	684.9	13.31	11.29	3.42	65.83	771.3	4.56	10.02	1.84	52.11	1194.2	2.11	6.92
5	2.93	27.02	574.2	14.25	14.18	2.65	18.78	[illegible]	2.57	14.50	1.16	25.26	943.5	3.87	8.99
6	1.75	9.84	245.2	2.43	33.34	1.84	3.26	308.2	1.82	27.81	1.00	3.76	297.7	0.49	28.93
7	3.87	73.28	885.7	17.13	8.76	3.98	21.09	915.9	12.47	9.23	4.74	192.35	1056.4	5.86	6.46
8	1.94	13.53	206.1	5.56	38.00	2.01	4.87	206.2	0.65	40.30	2.85	6.71	251.7	0.52	32.12
9	3.13	28.78	552.5	14.58	14.58	3.06	24.20	657.7	4.96	12.49	1.55	42.82	946.0	4.87	8.72
10	3.18	13.15	222.7	2.31	35.02	2.36	5.96	195.5	0.25	41.81	1.23	7.24	345.8	0.61	24.58
11	4.17	79.99	770.7	16.98	9.76	4.02	32.59	845.0	8.25	9.54	2.39	101.88	1111.0	4.77	6.84
12	4.43	12.58	267.8	3.02	29.42	4.12	10.22	205.8	0.34	37.78	3.47	7.54	329.3	0.81	25.21
13	4.30	72.49	844.8	19.51	9.13	4.15	36.64	915.9	7.80	8.92	2.06	78.71	1174.2	5.14	6.80
14	2.01	10.50	211.6	2.23	37.85	2.95	5.03	182.1	0.29	44.52	1.25	5.81	318.4	0.51	26.77
15	1.31	11.31	245.5	1.25	33.19	1.45	8.86	217.7	0.38	33.34	0.65	11.39	429.1	0.36	19.81
16	1.98	31.65	687.3	2.64	11.94	3.35	53.19	496.2	0.27	15.03	1.87	22.68	1037.9	1.21	8.25
17	5.19	83.57	855.2	17.99	8.85	4.76	79.62	893.5	3.68	8.58	2.23	73.37	1254.0	5.23	6.45
18	3.15	15.22	196.4	3.47	38.54	2.11	6.74	164.8	0.63	48.75	0.94	8.67	358.7	0.56	23.65
19	4.37	72.31	813.2	16.80	9.43	4.05	53.66	877.5	7.02	9.75	1.95	67.72	1143.6	4.69	7.07
20	3.09	15.56	326.5	2.39	24.21	2.92	9.84	242.5	1.15	34.51	1.38	12.61	441.0	0.48	19.08
21	5.83	146.33	956.3	19.07	7.37	5.06	45.89	[illegible]	11.54	7.49	4.64	179.14	1240.1	5.33	5.78
22	4.85	18.95	215.9	3.27	34.00	2.53	7.07	251.1	0.27	32.85	2.16	11.07	306.9	0.72	26.80
23	5.53	58.21	938.6	20.38	8.48	4.96	56.49	[illegible]	5.45	7.92	2.06	47.17	1405.0	4.02	5.97
24	3.64	51.54	646.7	17.22	12.00	3.20	20.76	759.6	5.30	11.06	1.08	30.08	962.2	5.62	8.71
25	3.10	14.41	254.3	3.57	30.95	2.19	4.63	214.5	0.57	38.46	1.55	10.49	298.4	0.53	27.75
26	2.19	13.87	402.7	2.70	20.20	2.48	16.45	327.[illegible]	1.16	24.57	1.24	17.09	659.5	0.76	12.86
27	4.58	57.87	708.6	19.34	10.90	3.70	35.39	840.0	1.92	9.85	1.14	29.63	1101.3	5.60	7.71
28	4.38	15.83	172.6	3.12	41.99	2.51	7.91	203.4	0.33	39.65	1.34	9.13	397.6	0.73	21.33
29	5.02	46.27	856.0	17.59	9.40	4.60	57.52	910.5	8.80	8.74	1.75	40.13	1305.2	3.68	6.06
30	3.74	69.40	654.1	16.37	11.45	3.55	27.90	844.5	0.57	9.87	1.76	78.60	1042.3	5.42	7.56
31	3.20	13.36	167.0	3.96	44.79	3.76	7.17	[illegible]	0.30	43.98	2.28	8.88	256.3	0.38	31.98
32	3.25	20.59	476.8	3.12	17.07	2.44	14.50	368.7	0.93	22.76	0.96	22.74	783.2	0.78	10.80
ACT. BAG	3.09	32.19	596.1	7.61	13.92	2.69	25.72	534.6	2.09	15.21	1.47	28.65	752.2	2.25	11.07
CALC BAG	2.91	31.73	532.7	8.63	15.00	2.56	20.09	527.3	2.91	15.65	1.43	30.22	735.8	2.39	11.27
33	0.34	2.91	113.4	0.09	74.54	0.56	6.47	[illegible]	0.07	106.07	0.42	1.77	168.5	0.31	51.43
34	3.38	28.42	1367.6	0.93	6.24	5.77	61.82	928.1	0.69	8.51	4.74	16.06	2070.6	2.96	4.20
35	1.18	14.21	836.2	0.60	10.29	2.62	23.59	465.7	0.40	16.71	2.02	8.20	1042.3	1.75	8.36
36	0.61	5.00	632.9	0.70	13.81	1.98	10.72	401.4	0.47	20.91	0.74	4.46	713.8	0.57	12.27
37	1.13	2.90	435.5	2.00	20.00	1.09	4.24	391.7	1.10	22.09	0.66	4.72	681.9	0.66	12.84
38	1.46	10.01	476.1	5.03	17.88	0.87	5.05	414.2	2.37	20.89	0.39	5.25	587.8	0.83	14.86
39	1.92	21.01	513.1	7.39	16.07	1.29	14.87	467.3	0.85	17.94	0.43	7.10	567.8	1.82	15.29

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTE PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	7	1974	OLDS	CUTL	350	8	1974	PLYM	DUST	318	9	1974	PONT	CATA	400
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	5.79	46.64	1526.7	7.28	5.48	4.93	34.59	1433.8	5.32	5.90	8.24	263.58	1880.0	4.78	3.83
2	3.19	10.47	451.8	0.94	18.55	1.66	21.71	432.3	0.89	18.82	4.84	53.06	425.9	0.61	16.92
3	8.59	49.05	1270.4	4.08	6.46	5.23	108.83	1247.3	3.37	6.19	6.85	291.77	1344.3	2.33	4.86
4	3.29	22.99	936.1	4.28	9.03	2.13	22.84	883.8	3.12	9.58	2.69	61.68	1139.0	2.83	7.13
5	2.46	10.46	856.8	4.23	10.07	1.87	9.19	718.7	2.35	12.04	2.57	55.08	873.7	2.92	9.16
6	2.20	5.90	222.6	0.59	37.16	0.90	7.56	203.6	0.58	40.65	1.66	14.58	327.8	0.53	24.93
7	6.67	255.33	1026.2	4.13	6.13	2.51	13.37	962.7	11.69	8.95	5.72	253.33	1151.7	3.71	5.66
8	1.73	12.03	240.4	1.24	33.51	1.05	4.80	243.4	0.41	34.90	1.67	15.83	267.0	0.82	29.87
9	3.97	92.34	739.8	3.63	9.89	1.57	7.09	741.8	4.09	11.71	3.10	169.02	953.2	1.41	7.22
10	3.35	6.26	250.7	0.65	32.73	1.28	11.09	177.0	0.43	44.71	1.97	13.24	297.7	0.67	27.33
11	5.68	189.86	908.4	3.45	7.25	2.46	15.02	906.7	7.64	9.46	4.10	195.58	1241.8	2.64	5.68
12	7.18	8.36	246.2	0.79	31.46	3.17	14.37	233.4	0.52	33.37	3.73	16.98	371.7	0.70	21.64
13	5.26	97.62	1049.1	5.32	7.28	2.39	14.02	950.5	5.87	9.06	3.90	179.03	1271.3	3.11	5.67
14	4.12	6.82	197.2	0.55	40.16	1.23	10.85	153.8	0.61	50.79	1.85	9.38	256.2	0.49	32.06
15	2.10	8.86	296.9	0.52	27.95	1.28	17.17	241.6	0.79	32.56	2.61	57.81	455.7	0.40	16.00
16	3.88	23.60	738.9	0.90	11.26	3.20	61.32	615.6	0.82	12.29	4.24	181.85	1024.4	1.06	6.71
17	5.05	83.87	1096.7	5.18	7.13	2.89	18.24	1023.1	5.27	8.37	4.30	178.36	1326.1	3.08	5.48
18	2.80	9.40	225.9	0.68	35.57	1.26	13.96	191.8	0.60	40.76	2.70	22.02	266.6	0.42	28.66
19	5.08	125.31	965.6	3.96	7.53	2.44	15.08	873.7	4.56	9.81	2.44	99.46	1238.0	3.23	6.33
20	4.11	11.96	312.7	0.94	25.76	1.35	18.09	254.4	0.53	30.91	2.95	26.77	393.0	0.55	19.97
21	7.83	234.36	1082.0	5.33	6.02	3.47	20.78	1178.0	11.92	7.26	7.54	298.07	1406.4	4.19	4.67
22	4.08	8.14	280.5	0.64	28.99	1.73	13.15	259.5	0.56	31.07	2.87	17.38	325.0	0.57	24.56
23	4.72	22.97	1200.5	6.59	7.09	3.49	31.66	1121.8	3.98	7.51	4.76	132.61	1440.6	3.58	5.33
24	3.93	118.94	720.5	2.75	9.65	1.75	9.54	812.6	5.01	10.65	3.36	171.32	980.5	2.06	7.04
25	2.70	6.97	235.0	0.75	34.87	1.36	8.35	257.3	0.62	32.31	1.99	13.57	326.5	0.62	25.06
26	4.13	17.28	495.4	1.64	16.57	2.13	28.65	438.3	0.98	18.11	4.67	66.16	488.7	0.80	14.61
27	3.83	48.99	866.8	5.72	9.28	2.08	12.39	866.5	4.57	9.94	3.05	135.32	1125.1	2.58	6.59
28	3.27	7.54	268.0	0.65	30.58	1.76	14.63	263.5	0.57	30.39	2.31	20.21	298.7	0.43	26.28
29	4.90	25.91	1077.1	6.07	7.83	3.33	29.14	993.4	3.83	8.45	4.14	141.78	1212.6	2.55	6.13
30	4.75	195.38	822.3	2.94	7.76	2.42	10.81	850.2	5.71	10.15	4.58	166.58	827.8	1.95	8.04
31	4.79	6.90	184.4	0.56	42.17	1.74	10.08	254.8	0.45	32.14	2.46	22.66	398.8	0.37	20.07
32	3.63	16.21	514.4	1.22	16.10	2.48	34.82	447.8	0.81	17.39	4.85	75.98	607.0	0.69	11.96
ACT BAG	3.33	47.91	601.2	2.18	12.92	1.75	10.17	550.9	2.49	15.50	2.54	87.17	732.4	1.33	10.11
CALC BAG	3.03	43.36	588.1	2.21	13.33	1.81	12.00	534.5	3.02	15.88	2.52	74.88	715.7	1.61	10.55
33	0.34	0.54	106.0	0.07	82.24	0.49	10.72	91.6	0.07	80.71	1.17	18.61	113.8	0.04	60.50
34	3.37	6.25	1427.7	1.29	6.13	6.26	120.03	1092.6	0.88	6.82	15.71	303.44	1205.0	0.45	5.13
35	1.43	4.44	953.6	0.93	9.20	2.95	53.09	571.7	0.46	13.30	3.76	130.06	741.2	0.37	9.27
36	1.20	3.49	645.0	0.65	13.56	1.82	25.88	469.1	0.51	17.22	1.30	66.06	760.6	0.45	10.22
37	1.11	3.14	434.7	0.74	20.03	1.18	4.89	375.8	1.31	24.17	1.69	41.90	463.0	0.43	16.61
38	0.84	2.76	465.0	1.11	18.80	1.19	2.34	359.1	2.52	24.22	0.90	15.57	503.5	0.98	16.72
39	0.94	3.20	490.0	1.87	17.82	1.25	2.63	376.5	2.60	21.94	0.19	10.84	626.4	1.97	13.78

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

MODE NO	HC	CO	CO2	NOX	MPG
	VEH	YEAR	MAKE	MODEL	CID
	10	1974	VOLK	DASH	97
1	6.19	172.42	815.0	7.35	8.03
2	1.40	31.44	221.7	1.20	72.21
3	4.63	223.77	755.8	1.04	7.91
4	1.96	84.51	394.2	2.16	16.64
5	0.99	26.76	403.5	0.71	19.78
6	0.76	10.65	133.5	0.68	58.13
7	3.39	63.25	400.0	5.06	17.40
8	0.86	13.58	110.6	1.59	65.89
9	1.37	70.84	402.6	3.55	17.12
10	0.82	12.14	133.9	1.15	57.17
11	4.40	70.12	338.6	4.56	19.18
12	1.06	23.46	138.9	1.70	49.56
13	4.62	99.43	430.1	4.88	14.77
14	0.64	8.45	114.7	1.01	68.25
15	1.40	31.28	141.9	0.71	45.40
16	3.55	132.88	303.0	0.51	16.97
17	4.71	119.43	444.7	4.98	13.71
18	1.24	13.05	161.9	0.60	47.64
19	2.73	72.60	439.5	5.10	15.79
20	2.12	33.57	211.3	0.75	32.78
21	5.38	98.63	385.7	5.19	15.91
22	1.25	28.41	155.4	0.57	43.50
23	4.54	128.75	556.7	4.88	11.45
24	2.31	27.18	382.2	4.70	19.81
25	0.55	15.08	139.2	1.35	53.92
26	1.63	134.96	236.8	1.05	19.55
27	3.65	55.73	412.1	6.69	17.26
28	1.05	14.19	137.3	0.91	54.48
29	3.95	129.06	484.9	2.92	12.68
30	3.19	45.21	398.2	4.53	18.51
31	0.51	16.47	107.8	2.06	65.58
32	1.60	86.46	225.2	1.37	24.17
ACT BAG	2.19	41.39	290.1	2.52	24.51
CALC BAG	1.70	34.91	277.9	2.63	26.25
33	0.40	14.50	41.4	0.03	135.62
34	2.79	120.12	612.2	0.58	10.96
35	1.55	57.68	329.5	0.35	20.88
36	1.03	39.13	209.9	0.27	32.32
37	0.72	10.13	193.2	1.02	41.98
38	0.30	1.07	244.6	1.00	35.90
39	0.43	2.28	265.4	2.79	32.83

MODE NO	HC	CO	CO2	NOX	MPG
	VEH	YEAR	MAKE	MODEL	CID
	11	1973	AMER	HORN	258
1	0.29	32.19	[illegible]	20.91	5.42
2	0.42	[illegible]	[illegible]	1.21	27.80
3	[illegible]	45.61	[illegible]	5.31	5.61
4	1.52	13.05	801.8	7.03	10.73
5	1.22	11.32	638.2	8.76	13.25
6	0.97	6.01	168.7	0.35	48.97
7	5.19	324.26	907.2	5.12	6.19
8	0.79	7.22	183.9	1.22	44.91
9	2.49	100.49	[illegible]	[illegible]	10.70
10	1.55	7.55	243.7	1.69	34.07
11	3.74	155.22	651.1	8.72	8.02
12	2.86	9.20	241.0	1.41	33.55
13	3.20	111.96	934.2	10.80	7.92
14	1.79	6.37	159.1	0.92	50.80
15	0.39	11.30	191.7	1.40	42.12
16	0.96	30.18	441.7	1.06	18.03
17	2.28	45.45	1010.3	17.09	8.20
18	1.46	8.62	220.9	0.67	37.17
19	2.36	48.86	951.1	10.55	8.49
20	1.67	11.94	249.3	0.84	32.40
21	5.59	314.68	916.0	6.06	6.08
22	2.13	6.54	247.6	1.09	33.15
23	2.65	39.69	1016.8	8.39	7.65
24	2.51	121.86	569.0	7.33	10.22
25	1.22	7.43	216.4	1.46	38.26
26	0.65	18.91	309.8	2.13	25.98
27	2.21	51.74	856.9	11.70	9.43
28	2.00	8.67	200.0	0.91	40.35
29	1.75	24.40	985.2	5.86	8.62
30	4.07	205.47	876.0	7.25	7.32
31	1.59	7.35	195.2	1.75	41.70
32	0.91	20.64	304.4	2.98	26.12
ACT BAG	1.82	44.29	549.5	4.30	14.20
CALC BAG	1.53	44.87	535.5	4.43	14.53
33	0.08	0.30	72.4	0.06	121.34
34	1.51	3.88	967.0	1.35	9.08
35	0.74	2.46	605.8	0.93	14.50
36	0.38	2.25	557.4	0.99	15.79
37	0.28	2.01	398.8	1.96	22.07
38	0.19	2.27	430.4	1.80	20.42
39	0.09	2.23	469.8	3.87	18.74

MODE NO	HC	CO	CO2	NOX	MPG
	VEH	YEAR	MAKE	MODEL	CID
	12	1973	BUIC	LESA	350
1	4.41	28.45	1991.0	13.04	4.33
2	2.18	6.74	499.1	0.70	17.41
3	4.82	36.30	1720.3	2.71	4.94
4	2.41	18.67	1095.7	4.99	7.82
5	1.71	10.33	891.8	0.62	9.72
6	3.71	5.73	275.1	0.65	30.09
7	3.84	239.56	1226.9	5.77	5.49
8	4.29	6.76	232.5	1.02	35.97
9	1.52	23.21	885.6	7.12	9.58
10	3.37	6.60	258.5	1.43	31.75
11	1.98	87.99	1186.8	7.65	6.67
12	6.72	9.03	313.0	1.75	25.58
13	2.82	78.36	1204.4	8.18	6.64
14	4.66	6.16	196.9	0.76	39.75
15	2.00	10.91	321.4	0.38	25.73
16	-0.01	25.99	785.6	1.01	10.74
17	2.30	21.18	1275.1	9.77	6.75
18	2.61	8.30	261.6	0.59	31.37
19	1.84	25.75	1182.4	10.23	7.22
20	2.98	11.49	350.4	0.82	23.49
21	4.48	214.98	1341.3	6.41	5.24
22	4.13	9.65	296.3	1.24	27.48
23	2.31	20.82	1432.5	7.95	6.03
24	1.14	20.98	935.8	8.58	9.13
25	3.79	7.50	286.4	1.34	28.61
26	1.69	18.21	492.3	0.63	16.86
27	1.23	16.79	1084.7	9.91	7.96
28	3.71	8.79	266.9	0.91	30.35
29	2.62	22.27	1175.8	6.36	7.16
30	1.36	44.87	1053.7	8.76	7.86
31	4.72	7.73	238.4	2.71	33.47
32	2.42	18.90	515.7	0.79	15.96
ACT BAG	2.13	26.01	680.3	3.93	12.19
CALC BAG	2.06	25.52	650.0	3.71	12.74
33	0.12	0.63	120.6	0.06	72.75
34	2.71	7.81	1408.4	0.83	6.21
35	1.14	4.30	789.9	0.51	11.06
36	0.69	6.99	637.7	0.64	13.34
37	1.04	3.36	438.0	0.50	19.88
38	0.71	2.54	405.5	1.37	21.36
39	0.51	3.34	415.9	2.91	19.60

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	13	1973	BUIC	RIVI	455	14	1973	CADI	COUP	472	15	1973	CAPR	CAPR	122
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	6.31	159.12	2102.6	12.53	3.74	0.66	27.52	2304.3	20.10	3.78	4.71	65.26	889.7	10.65	8.81
2	2.50	57.61	641.4	0.58	12.00	0.58	17.27	712.1	1.69	11.98	0.77	17.88	207.8	0.60	37.24
3	5.18	45.79	1622.7	2.71	5.19	2.34	39.50	1860.5	12.30	4.58	3.51	97.43	718.9	2.33	10.05
4	3.14	24.07	1010.2	3.95	8.39	2.34	17.32	1147.7	11.51	7.51	1.55	18.09	574.2	4.58	14.61
5	2.51	19.74	864.8	5.05	9.82	3.33	12.43	976.9	11.84	8.82	1.92	6.03	388.5	5.94	21.96
6	3.76	6.06	265.0	0.31	30.99	2.22	7.56	344.6	1.54	24.42	0.45	8.49	138.1	0.64	58.06
7	4.45	198.85	1297.6	8.39	5.46	2.79	163.80	1319.7	17.38	5.49	5.47	16.65	625.7	6.78	13.26
8	4.67	6.72	226.5	2.09	35.24	1.39	6.70	304.4	1.74	27.79	1.14	12.25	162.0	1.84	48.02
9	2.42	33.31	955.2	7.67	8.74	2.21	35.83	936.6	8.95	8.88	2.92	36.78	508.9	9.11	15.41
10	5.22	6.54	284.0	0.76	28.56	2.82	8.62	433.1	1.10	19.48	0.80	13.88	118.1	0.91	62.32
11	2.85	48.93	1156.1	11.15	7.15	1.23	70.12	1419.5	12.78	5.79	4.75	48.15	600.8	11.80	12.83
12	8.01	8.39	276.0	1.10	28.22	3.57	10.92	457.3	2.45	18.27	1.84	18.42	114.7	1.11	59.38
13	2.47	27.80	1193.7	11.79	7.13	2.29	44.26	1498.7	13.82	5.63	4.42	38.29	630.6	12.52	12.59
14	5.62	6.11	215.0	0.64	36.61	2.47	6.97	303.3	1.32	27.55	0.56	12.23	131.2	0.97	58.32
15	1.94	14.30	386.4	0.78	21.38	1.52	13.67	468.0	1.39	17.95	0.48	18.84	195.3	0.76	39.20
16	3.16	31.90	937.4	1.22	8.90	1.83	30.23	1168.9	1.48	7.26	2.21	70.78	363.6	0.85	18.42
17	3.05	34.18	1193.9	9.19	7.06	2.16	38.09	1518.3	15.70	5.60	3.27	37.61	638.5	11.75	12.54
18	3.38	17.53	306.4	0.62	25.75	1.13	9.52	413.1	1.97	20.56	0.57	16.29	111.2	0.61	64.03
19	2.85	35.16	1184.5	8.12	7.11	2.16	28.38	1117.9	13.68	7.59	3.02	49.31	563.6	9.02	13.64
20	4.56	11.40	382.8	0.82	21.38	1.12	11.96	558.5	1.37	15.28	0.79	23.63	180.6	0.84	40.31
21	3.90	126.65	1343.0	11.24	5.71	3.27	160.69	1762.0	17.28	4.38	5.62	219.86	688.4	7.42	8.44
22	5.71	8.17	305.6	0.87	26.37	2.26	10.64	417.0	1.39	20.13	1.84	17.19	169.3	1.20	43.90
23	4.26	34.61	1323.0	7.71	6.38	2.89	28.69	1602.8	19.39	5.36	3.87	56.36	717.4	7.47	10.85
24	2.15	21.26	880.7	8.93	9.64	1.74	32.35	1111.2	11.63	7.60	3.46	26.93	506.5	11.04	15.85
25	4.12	6.25	245.1	0.61	33.12	2.14	7.74	381.0	1.54	22.19	0.95	13.05	145.3	1.14	52.57
26	3.12	36.50	664.2	1.17	12.13	1.27	26.69	797.4	1.86	10.52	0.98	33.14	259.9	1.33	28.16
27	2.43	24.45	1008.4	10.43	8.42	2.01	25.18	1277.8	14.66	6.70	2.79	28.53	549.5	11.42	14.71
28	5.15	8.30	298.3	0.62	27.09	2.10	12.49	413.9	0.81	20.16	1.51	22.39	110.6	0.93	58.95
29	4.51	29.16	1168.0	6.59	7.23	2.94	22.88	1413.2	17.72	6.09	2.52	40.31	648.8	5.96	12.33
30	2.39	36.77	1117.3	10.20	7.50	1.84	46.93	1332.1	12.46	6.29	3.55	85.03	540.5	8.32	12.95
31	5.77	6.49	203.3	0.84	38.29	2.02	6.17	274.0	2.48	30.59	0.68	14.28	116.7	1.13	62.81
32	2.58	27.79	657.5	1.21	12.51	1.52	24.70	802.5	2.09	10.49	0.87	24.72	243.3	0.96	31.16
ACT BAG	2.84	18.68	690.4	3.89	12.18	1.63	19.26	838.5	5.86	10.16	2.51	29.26	389.4	3.95	20.02
CALC BAG	2.71	21.77	689.3	4.22	12.12	1.64	22.96	807.5	6.13	10.46	1.61	24.29	370.3	4.18	21.45
33	0.15	1.05	154.8	0.08	56.55	0.25	3.39	166.0	0.15	51.57	0.34	9.05	50.0	0.03	136.00
34	2.48	12.33	1762.0	1.32	4.96	2.35	40.95	2083.7	1.74	4.12	4.10	85.45	576.4	0.43	12.26
35	1.06	5.23	891.2	0.59	9.83	1.00	16.62	1109.6	1.08	7.79	2.13	41.30	334.8	0.32	21.84
36	0.53	4.20	806.8	0.69	10.89	0.47	6.72	857.0	0.92	10.21	0.51	7.89	411.2	0.60	20.87
37	1.07	3.54	472.1	1.25	18.45	1.05	3.41	516.5	1.68	16.90	0.13	1.30	336.5	0.91	26.18
38	1.37	3.51	508.9	1.14	17.11	1.26	2.98	540.2	2.47	16.17	0.15	1.69	322.7	1.51	27.24
39	0.89	3.90	535.1	3.37	16.31	0.56	3.34	568.3	4.29	15.43	0.15	1.72	317.0	2.75	27.72

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D-[illegible]

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

[illegible] MODELS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	[illegible]	1973	CHEV	VEGA	140	[illegible]	1973	CHEV	[illegible]	250	[illegible]	1973	CHEV	NOVA	307
MODE NO.	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	0.41	56.09	906.1	[illegible]	8.65	7.08	183.[illegible]	[illegible]	15.71	[illegible]	6.[illegible]	44.84	1196.8	11.00	8.98
2	1.83	18.80	225.1	1.20	34.[illegible]	3.40	13.76	259.4	1.39	31.24	3.2[illegible]	5.53	472.2	0.70	17.93
3	3.81	45.35	805.0	1.50	12.09	1.46	44.90	714.[illegible]	4.84	10.84	7.36	55.54	1106.1	3.69	7.51
4	2.13	31.28	529.2	2.56	15.17	0.79	20.95	408.5	7.02	15.75	4.46	33.38	780.9	5.77	10.47
5	1.63	15.96	452.2	4.45	18.40	1.23	15.09	300.1	10.53	26.88	5.02	26.01	593.9	6.15	12.78
6	0.85	7.49	121.7	1.37	65.17	0.27	7.62	111.8	1.82	64.86	1.02	5.70	233.4	0.74	35.73
7	2.17	70.51	558.4	3.65	13.13	[illegible]	271.25	404.1	7.01	12.72	7.24	276.21	657.5	3.41	7.69
8	0.92	10.74	114.5	1.80	[illegible]	0.41	8.75	110.1	3.95	65.64	1.44	4.83	195.2	1.73	42.80
9	1.74	35.67	497.7	3.05	15.57	1.51	15.28	247.7	15.00	28.32	2.67	47.09	565.3	6.47	13.61
10	1.87	10.30	144.6	1.73	53.15	[illegible]	[illegible]	112.2	2.32	[illegible]	1.98	8.52	244.1	1.12	33.61
11	2.18	52.19	580.4	3.13	13.20	2.00	102.22	[illegible]	12.57	[illegible]	8.32	184.49	705.2	4.07	8.74
12	2.41	12.54	134.5	1.99	54.31	5.48	10.21	158.[illegible]	5.90	46.15	5.30	9.27	254.7	1.22	31.02
13	2.52	62.58	587.6	3.43	12.31	2.81	77.80	[illegible]	12.52	18.11	4.50	88.81	709.0	8.23	9.35
14	1.10	9.88	117.8	1.32	56.84	2.10	10.82	128.[illegible]	4.64	56.21	4.14	9.20	174.2	0.71	44.19
15	1.13	10.10	140.3	0.79	55.55	1.28	17.81	[illegible]	2.55	50.70	2.31	12.02	301.5	0.92	27.08
16	2.70	51.57	353.6	0.82	20.03	1.32	41.13	[illegible]	1.17	22.31	5.25	28.43	802.8	1.97	10.26
17	2.82	66.46	582.0	3.82	12.75	2.98	75.41	[illegible]	15.42	15.83	5.97	121.39	805.1	6.57	8.75
18	1.49	7.63	115.5	1.29	67.10	2.11	11.75	112.9	1.53	54.05	2.05	12.21	249.6	0.84	32.24
19	2.32	55.70	556.5	5.45	13.12	1.25	100.35	[illegible]	[illegible]	17.81	4.56	74.90	833.7	7.90	9.19
20	2.06	13.07	155.0	1.31	46.53	[illegible]	[illegible]	[illegible]	1.72	43.98	3.23	15.09	322.2	0.88	24.91
21	2.65	95.79	692.8	3.51	10.43	[illegible]	205.81	[illegible]	[illegible]	10.76	5.47	303.43	813.8	3.86	6.72
22	2.35	17.23	154.1	1.76	47.05	3.75	11.55	120.1	[illegible]	50.90	4.57	11.18	248.0	1.32	31.14
23	2.77	27.06	440.5	2.90	17.92	3.40	59.04	[illegible]	10.90	12.03	6.08	50.92	886.7	8.03	9.00
24	1.73	32.52	502.3	3.15	15.08	0.95	21.04	327.[illegible]	14.00	24.52	2.45	57.01	651.0	7.08	11.81
25	0.82	8.28	127.2	1.87	62.17	[illegible]	[illegible]	113.1	2.46	44.20	3.13	9.29	198.4	0.96	39.81
26	1.88	26.49	209.0	0.98	34.50	1.12	[illegible]	259.[illegible]	1.35	28.17	3.73	21.02	528.9	1.23	15.47
27	2.02	34.37	524.8	3.11	15.17	1.37	38.74	370.5	[illegible]	20.95	3.98	62.71	729.9	7.78	10.55
28	2.25	15.79	136.7	1.91	52.39	3.04	[illegible]	124.1	1.52	57.08	3.33	12.54	255.1	0.81	31.10
29	2.91	39.90	593.8	3.17	12.83	2.25	[illegible]	[illegible]	10.90	12.72	5.95	58.16	814.4	5.15	9.59
30	2.31	67.61	552.8	5.92	13.72	1.02	[illegible]	171.[illegible]	14.85	22.87	8.29	71.70	654.9	8.34	11.40
31	1.21	11.21	104.8	1.84	70.30	4.52	10.98	[illegible]	[illegible]	76.22	4.34	9.50	190.6	1.05	40.48
32	2.35	37.59	243.1	1.36	29.86	1.35	[illegible]	252.[illegible]	[illegible]	29.70	4.00	27.84	526.2	1.28	15.23
ACT BAG	1.92	26.77	347.7	3.77	22.42	1.98	20.22	523.5	6.38	15.67	7.01	43.85	506.5	2.94	14.85
CALC BAG	1.63	25.14	343.7	4.02	22.88	1.80	34.74	771.1	7.55	22.88	3.23	41.86	487.4	3.07	15.75
33	0.21	1.72	52.9	0.03	157.68	0.15	0.54	95.[illegible]	0.08	101.52	1.30	0.96	125.6	0.11	67.65
34	2.76	31.69	635.1	0.45	12.90	1.77	8.20	870.8	1.22	10.02	8.90	7.57	1620.2	2.84	5.35
35	1.05	6.40	361.4	0.28	23.68	0.30	8.80	1019.2	1.67	8.50	4.92	4.19	783.3	1.00	11.02
36	1.06	17.58	335.1	0.37	24.24	0.87	3.47	435.2	1.29	20.01	2.73	2.70	533.3	0.69	16.19
37	0.98	5.99	241.6	1.31	34.93	0.74	7.27	370.8	2.06	23.77	1.53	1.38	357.0	0.53	24.20
38	0.99	4.79	268.9	2.60	31.75	0.58	7.39	382.1	6.20	22.44	0.96	4.59	382.5	1.27	22.60
39	1.20	15.29	298.4	4.87	27.20	0.44	5.69	417.7	9.93	20.98	0.71	9.01	403.0	2.38	21.16

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTE PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
MODE	19	1973	CHEV	1/2	307	20	1973	CHEV	CUST	350	21	1973	CHEV	IMPA	307
NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	4.43	36.56	1534.7	18.27	5.53	4.59	46.06	[illegible]	30.02	6.53	7.06	70.46	1761.5	22.46	4.68
2	2.45	15.15	433.1	1.97	19.10	2.56	25.04	291.6	1.68	26.18	1.39	24.45	531.5	1.33	15.45
3	5.08	37.29	1401.8	6.15	6.01	5.28	82.69	989.9	9.29	7.81	7.67	73.93	1374.6	3.08	5.86
4	2.14	17.66	925.2	8.17	9.25	1.95	19.01	842.9	13.31	10.10	3.36	18.00	990.3	10.85	8.62
5	2.39	12.63	754.5	14.04	11.35	1.34	6.97	688.8	12.31	12.98	3.73	28.25	808.0	11.19	10.27
6	1.45	9.32	242.9	1.85	33.86	0.62	5.98	229.3	3.66	36.88	1.24	9.54	421.2	2.23	20.16
7	4.23	240.04	928.5	7.53	6.73	3.47	74.77	813.7	22.07	9.13	5.79	348.64	969.4	6.18	5.78
8	2.64	8.49	229.7	2.60	35.30	0.52	5.30	300.7	6.41	28.57	0.97	8.09	291.1	2.99	28.92
9	1.59	24.68	781.5	11.81	10.75	1.69	23.28	709.3	19.56	11.81	3.82	154.64	722.3	7.74	9.00
10	2.71	10.93	274.8	2.57	29.53	4.98	14.52	222.0	3.76	34.06	0.55	8.67	312.1	1.66	27.10
11	2.42	91.97	1008.7	11.80	7.65	2.40	30.11	[illegible]	27.76	10.63	7.29	261.66	882.9	4.42	6.74
12	3.30	12.44	255.2	4.21	31.12	6.47	13.39	197.2	3.71	37.17	0.75	12.68	421.4	4.83	20.01
13	2.07	72.56	1073.8	13.81	7.43	2.28	19.62	889.8	26.10	9.57	6.89	202.78	958.3	9.03	6.83
14	2.69	9.22	200.2	1.41	39.75	3.91	7.81	199.0	2.57	39.68	0.58	8.79	305.2	1.40	27.66
15	1.36	14.00	280.3	1.11	28.95	2.43	14.73	[illegible]	1.38	40.99	0.75	20.14	329.1	0.44	24.44
16	2.36	41.92	700.7	0.74	11.47	2.97	34.61	468.0	2.45	16.69	2.20	48.98	858.7	0.43	9.42
17	2.19	40.32	1131.3	15.10	7.39	2.74	28.11	904.5	21.89	9.27	7.09	178.34	1309.8	11.23	5.50
18	1.24	14.64	243.2	1.76	32.85	4.56	15.17	183.0	2.24	40.10	1.03	15.32	364.5	0.88	22.65
19	1.58	34.03	1017.6	12.32	8.25	2.45	22.41	834.8	21.19	10.11	4.92	101.95	1039.6	12.47	7.30
20	1.98	17.80	369.9	1.95	21.96	5.33	17.94	260.0	2.42	29.09	1.35	24.29	543.7	1.13	15.14
21	5.31	263.78	1186.0	7.91	5.49	4.16	95.82	1010.7	24.87	7.56	10.17	330.94	1112.4	6.15	5.33
22	3.02	13.79	332.8	2.91	24.38	4.43	13.04	140.2	3.42	50.78	0.75	14.44	391.9	1.40	21.29
23	2.75	43.11	1198.9	12.03	6.96	3.74	34.32	[illegible]	21.48	8.72	4.89	50.93	1278.7	15.47	6.46
24	1.73	32.19	799.6	12.54	10.37	1.79	22.55	701.7	18.76	11.95	4.03	145.08	771.5	7.51	8.77
25	2.34	11.26	235.9	2.17	34.00	2.45	7.38	210.7	3.82	34.12	0.55	9.29	344.2	1.60	24.62
26	2.16	28.20	482.2	2.47	16.64	3.44	22.65	377.3	2.45	20.94	1.69	53.24	384.5	0.60	18.74
27	1.84	40.04	947.5	14.53	8.73	1.71	13.01	[illegible]	24.08	11.12	4.92	113.35	898.6	11.91	8.13
28	2.42	14.43	268.9	1.68	29.66	5.58	13.24	215.3	5.46	34.97	0.77	18.50	422.2	1.36	19.56
29	2.54	52.48	1105.7	9.21	7.42	3.70	30.45	889.1	18.19	9.36	4.63	58.46	1171.2	11.91	6.95
30	2.05	64.14	907.7	12.68	8.74	2.32	31.55	792.1	23.07	10.45	7.19	192.15	837.1	6.89	7.64
31	2.10	13.58	233.6	2.29	33.92	4.06	10.00	[illegible]	1.62	34.03	4.51	8.30	163.2	1.22	46.57
32	2.36	29.28	504.4	3.20	15.91	3.63	34.54	333.9	2.39	21.93	2.09	50.14	701.0	0.62	11.29
ACT BAG	1.89	31.95	617.5	5.75	13.18	2.43	15.81	628.2	9.22	13.43	2.92	78.29	591.9	5.85	12.76
CALC BAG	1.85	32.64	609.1	6.32	13.32	2.17	16.89	558.2	10.41	15.00	2.67	65.65	601.8	4.42	12.44
33	0.36	1.27	116.8	0.10	74.03	0.58	9.01	[illegible]	0.05	94.74	0.45	1.83	105.9	0.10	80.57
34	4.59	20.72	1394.6	1.80	6.16	5.70	75.95	974.9	0.41	7.98	6.07	11.84	1310.6	1.03	6.58
35	2.05	10.77	700.6	0.81	12.26	2.69	19.62	718.2	0.67	11.72	1.20	20.82	928.9	0.76	9.19
36	1.24	4.11	637.4	1.08	13.70	1.25	3.99	647.2	1.12	13.50	1.08	19.84	632.0	0.60	13.32
37	1.55	2.41	416.7	2.33	20.87	0.70	3.02	498.6	2.19	17.56	1.00	15.04	386.2	0.72	21.49
38	0.80	5.07	451.9	4.24	19.20	0.40	2.98	509.0	4.99	17.24	1.01	7.84	395.4	1.85	21.60
39	0.37	10.67	508.6	5.77	16.86	0.37	3.48	515.4	8.26	16.08	0.80	5.90	437.3	3.97	19.76

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

MODE	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	22	1973	CHEV	MONT	350	23	1973	CHEV	IMPA	400	24	1973	CHRY	IMPE	440
NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	5.45	30.70	1587.5	18.29	5.37	3.57	58.13	2039.3	12.23	4.14	8.87	191.84	2055.7	22.53	3.72
2	1.79	26.19	396.1	1.41	20.04	1.43	34.85	560.2	0.71	14.33	2.14	23.81	393.5	1.55	20.28
3	4.04	77.10	1187.1	5.42	6.72	6.33	108.25	1795.3	2.62	4.47	8.90	301.46	1489.1	11.62	4.46
4	3.37	21.04	809.5	9.61	10.40	2.48	44.99	1305.1	4.78	6.41	5.43	118.29	1176.6	15.32	6.43
5	2.46	14.27	750.3	9.34	11.37	2.17	25.16	970.6	6.06	8.73	2.84	46.73	898.9	13.08	9.04
6	1.11	5.68	249.7	1.72	33.85	1.46	6.38	257.4	0.58	32.62	2.76	13.32	264.2	2.77	30.20
7	5.04	184.31	932.1	7.07	7.17	6.22	261.93	1216.0	8.27	5.36	6.72	265.89	1223.5	9.64	5.34
8	1.11	5.36	253.7	1.95	33.41	1.65	4.50	183.9	0.59	45.24	3.01	8.04	304.9	2.39	27.14
9	2.85	70.86	736.9	7.68	10.35	1.55	69.02	1025.7	5.59	7.79	2.20	76.05	1092.3	9.76	7.28
10	1.88	6.90	252.3	2.12	32.99	1.16	9.63	271.0	0.72	30.62	3.42	9.46	240.0	2.35	33.40
11	3.78	111.29	917.2	8.90	8.04	3.12	118.56	1242.0	9.02	6.17	4.20	175.92	1298.8	10.96	5.59
12	2.79	7.98	259.4	3.26	31.61	0.41	9.60	386.3	1.31	22.04	5.13	10.45	292.2	3.54	27.32
13	3.04	60.91	996.3	11.92	8.06	1.63	74.46	1330.7	10.39	6.11	3.25	86.36	1327.5	14.65	6.02
14	1.64	5.82	203.2	1.18	40.80	0.27	6.94	293.7	0.83	29.05	3.07	7.98	202.5	1.42	39.49
15	1.14	21.89	264.5	0.93	29.34	0.79	31.73	396.0	0.71	19.80	1.10	15.65	319.4	1.39	25.54
16	2.02	61.41	676.4	0.99	11.39	1.49	92.38	807.4	0.29	9.77	3.14	119.08	588.5	1.24	11.30
17	3.85	70.92	1065.6	13.00	7.46	1.99	73.14	1356.5	10.58	5.97	3.98	112.72	1361.7	14.99	5.72
18	0.87	8.24	250.9	1.41	33.29	0.95	9.48	276.7	0.54	30.13	2.89	11.91	232.9	2.11	34.04
19	3.47	58.33	924.5	12.20	8.64	1.47	62.76	1313.1	9.13	6.27	3.44	98.02	1370.5	15.05	5.78
20	1.20	10.80	335.8	1.76	24.89	0.95	20.45	412.1	0.74	19.84	3.88	15.72	290.4	2.15	27.11
21	4.66	188.99	1116.6	9.86	6.21	5.97	232.34	1361.5	9.65	5.08	6.95	350.86	1384.8	12.93	4.53
22	3.85	9.01	259.1	1.00	31.09	0.57	13.08	345.8	1.42	24.11	3.91	14.35	284.5	3.25	27.78
23	4.25	47.25	1187.7	13.74	6.96	1.55	43.26	1515.6	9.20	5.59	5.63	112.64	1528.6	20.54	5.15
24	2.52	52.07	803.2	9.49	9.94	1.82	81.08	1039.8	8.19	7.57	2.17	82.10	1030.5	12.07	7.61
25	0.79	7.16	281.7	2.02	30.04	0.15	8.61	300.5	0.99	28.22	2.08	7.41	225.6	2.61	36.39
26	1.65	43.40	434.4	1.24	17.48	1.32	36.29	539.1	0.98	14.79	2.22	28.54	421.0	2.94	18.77
27	2.57	34.56	884.4	12.24	9.37	1.00	35.51	1206.8	10.53	7.01	2.44	80.03	1170.9	14.30	6.80
28	1.44	10.42	232.0	1.01	35.09	0.63	14.13	301.9	0.69	27.22	3.56	12.45	285.5	2.02	28.06
29	4.55	40.19	1052.0	12.26	7.86	1.15	32.11	1488.4	6.15	5.75	5.77	133.84	1372.9	17.74	5.54
30	2.81	67.91	850.4	10.90	9.19	3.10	149.70	1142.1	8.34	6.40	2.53	126.42	1255.0	10.84	6.07
31	1.18	7.70	199.9	2.39	41.14	2.40	7.33	190.3	0.82	42.38	4.18	9.97	217.3	2.96	36.05
32	1.97	40.98	451.0	1.61	17.01	1.17	38.68	602.5	0.67	13.31	2.70	38.47	485.2	4.01	16.02
ACT BAG	1.89	31.05	572.9	4.54	14.14	1.51	45.58	744.0	3.67	10.82	2.71	64.68	725.7	6.18	10.62
CALC BAG	2.04	31.90	550.4	4.84	14.62	1.45	41.06	728.7	3.97	11.12	2.55	56.52	712.0	7.17	10.97
33	0.57	5.04	96.2	0.07	83.79	0.29	9.64	125.8	0.11	62.57	0.44	10.84	86.4	0.04	84.68
34	4.31	35.53	1129.2	0.83	7.40	3.92	119.75	1502.9	1.26	5.21	6.10	145.62	986.9	0.49	7.19
35	1.51	27.10	791.5	0.62	10.58	2.05	52.15	751.4	0.68	10.57	3.69	79.14	487.3	0.42	14.24
36	1.08	22.51	498.9	0.36	16.51	1.06	36.43	624.9	0.53	12.95	2.40	75.67	502.3	0.33	14.11
37	1.25	15.74	360.7	1.09	22.80	1.33	15.10	482.9	0.66	17.37	1.18	13.42	485.1	2.27	17.41
38	1.07	2.36	379.1	1.63	22.98	0.77	3.12	541.2	1.60	16.18	0.67	13.08	519.9	5.40	16.36
39	0.76	3.34	413.0	3.58	21.10	0.45	3.40	561.1	3.27	15.60	0.51	11.31	579.7	7.75	14.87

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	25	1973	DATS	1200	71	26	1973	DODG	SWIN	225	27	1973	DODG	VAN	318
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	3.50	25.19	712.8	6.64	11.63	4.52	137.30	865.3	5.30	8.10	4.88	39.14	1165.1	7.94	7.15
2	0.59	2.99	184.0	0.54	46.57	1.02	6.55	278.8	1.38	30.31	1.95	18.98	339.6	1.39	23.63
3	3.10	26.67	729.4	2.12	11.36	2.99	31.87	850.4	5.07	9.75	6.41	48.64	1122.9	0.71	7.28
4	1.19	13.25	410.2	2.08	20.41	1.97	19.18	637.4	5.42	13.17	2.53	33.19	749.4	2.01	10.95
5	1.16	9.11	321.7	3.16	26.13	1.96	28.99	515.0	5.32	15.66	1.82	14.55	595.7	7.07	14.22
6	0.65	1.83	114.9	1.17	74.08	1.63	4.52	148.8	0.79	55.11	0.80	6.00	176.3	1.84	47.15
7	1.70	17.12	242.4	3.70	32.31	3.59	137.80	669.2	7.66	9.89	3.24	44.76	899.7	9.36	9.05
8	0.60	0.81	110.0	2.25	78.42	0.85	5.35	137.4	1.31	44.71	0.76	6.13	192.6	1.94	43.36
9	1.31	9.98	283.1	4.52	29.30	1.97	45.69	578.8	6.05	13.57	1.96	20.69	649.8	6.26	12.89
10	0.75	3.64	119.6	2.29	69.48	2.05	4.45	199.8	0.91	41.62	2.15	9.99	199.5	2.67	39.98
11	3.02	34.51	355.0	3.78	21.19	2.96	107.25	659.6	7.00	10.60	3.35	37.90	843.8	8.29	9.71
12	1.09	3.61	125.2	2.05	66.08	3.05	6.27	220.6	0.81	36.96	2.47	9.18	210.7	2.71	38.10
13	2.79	24.70	409.1	5.97	19.43	3.33	121.43	626.6	1.09	10.72	4.22	31.38	849.4	8.88	9.73
14	0.59	2.50	88.0	1.01	94.60	1.63	4.34	138.4	0.81	55.34	1.68	6.66	168.3	1.97	48.22
15	0.70	4.53	127.0	0.60	65.10	0.90	6.79	203.2	1.39	40.96	3.29	13.63	198.9	0.54	38.46
16	1.76	13.04	302.9	0.63	26.98	1.98	24.21	487.9	1.03	16.68	4.42	33.21	513.7	0.47	15.31
17	2.68	34.35	412.4	4.54	18.69	4.14	160.98	617.9	3.07	10.04	3.28	42.89	822.7	7.59	9.86
18	0.74	2.41	121.8	1.21	69.38	1.20	6.04	182.6	0.81	45.30	1.47	9.49	185.5	1.40	43.28
19	2.07	24.94	378.3	4.55	20.93	3.39	127.53	600.9	4.13	10.82	4.18	30.53	806.8	7.21	10.23
20	0.97	2.51	155.6	1.34	54.58	1.38	8.97	209.8	0.83	38.89	1.87	11.92	283.4	1.45	28.81
21	3.52	39.31	399.2	3.44	18.80	3.72	144.45	751.3	8.42	8.96	4.43	51.66	961.1	12.31	8.40
22	1.01	3.78	114.8	1.71	71.63	1.62	6.52	240.1	1.14	34.74	1.73	13.10	233.4	1.32	34.21
23	2.74	30.88	553.6	4.87	14.53	2.91	36.05	760.8	7.47	10.74	7.43	43.31	877.2	6.64	9.16
24	1.26	11.35	354.1	4.37	23.61	2.00	50.31	582.4	7.21	13.29	2.14	20.87	654.1	11.08	12.80
25	0.64	2.23	115.3	1.87	73.43	1.22	5.94	200.1	1.08	40.11	0.81	7.71	207.8	3.35	39.90
26	0.67	9.74	325.9	1.26	25.85	1.24	13.25	305.7	1.71	26.86	3.72	20.81	338.5	0.91	23.17
27	1.87	15.27	384.0	5.92	21.44	2.46	73.63	595.3	5.92	12.33	2.65	26.95	729.5	7.88	11.38
28	0.68	2.93	104.0	1.16	80.17	1.75	8.29	193.0	0.92	41.95	3.87	11.18	191.2	2.14	40.15
29	2.15	17.81	504.3	3.98	16.46	2.71	30.70	733.8	7.45	11.23	3.48	36.85	822.7	5.15	9.95
30	1.70	22.74	384.1	4.19	20.87	2.94	116.21	623.3	4.95	10.89	2.25	25.13	750.9	9.06	11.13
31	0.55	1.83	93.1	2.16	90.85	1.95	5.87	136.2	0.82	62.67	0.98	9.44	164.8	3.08	48.57
32	0.96	3.61	241.1	1.03	35.53	1.62	10.77	331.3	1.02	25.12	4.52	24.62	344.6	1.10	27.32
ACT BAG	1.33	14.91	232.9	2.79	34.07	1.73	33.16	430.1	2.87	18.20	2.79	15.70	490.8	4.36	16.93
CALC BAG	1.13	8.83	240.3	2.91	34.43	1.65	34.44	430.5	3.13	18.12	2.12	16.40	492.6	5.47	16.90
33	0.14	0.17	20.3	0.02	422.82	0.07	1.70	56.6	0.06	144.36	0.39	1.47	82.4	0.05	103.31
34	1.40	8.05	391.7	0.39	21.71	2.24	33.74	757.3	1.01	10.86	4.16	22.32	1006.7	0.55	8.41
35	0.31	6.01	491.4	0.76	17.69	0.78	7.89	407.5	0.49	21.26	2.59	16.03	593.8	0.40	14.15
36	0.34	4.27	285.1	0.49	30.31	0.60	1.81	333.3	0.66	26.26	1.52	9.84	464.2	0.40	18.32
37	0.25	2.76	221.5	0.74	39.17	0.69	2.09	336.2	1.25	25.98	1.18	7.15	365.2	1.51	23.35
38	0.56	1.42	166.5	1.94	52.07	0.82	3.34	367.9	2.03	23.62	0.84	2.63	379.4	4.23	22.98
39	0.64	1.54	189.3	3.87	45.82	0.50	5.46	413.2	3.05	19.58	1.26	8.51	429.7	8.16	19.85

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	28	1973	FORD	PINT	122	29	1973	FORD	SUPE	250	30	1973	FORD	MAVE	302
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	2.66	38.02	575.2	9.77	13.80	10.60	87.01	778.6	17.15	9.35	3.76	16.81	1250.1	5.95	6.89
2	0.73	8.05	281.5	0.81	29.93	8.00	21.86	294.4	1.09	25.06	1.14	13.07	505.1	0.59	16.77
3	2.09	23.27	644.3	1.92	12.91	16.70	249.50	1386.6	7.45	4.84	4.13	32.07	1167.1	2.52	7.21
4	1.22	13.95	463.9	3.84	18.13	5.49	30.31	624.6	3.55	12.87	1.96	18.04	767.2	3.54	11.07
5	0.95	11.14	376.1	7.25	22.38	2.65	17.22	497.8	1.22	16.64	1.85	11.05	678.1	4.46	12.66
6	0.32	3.52	140.6	0.85	60.33	7.34	11.89	135.3	0.53	50.02	0.62	11.49	206.2	1.08	39.23
7	2.45	76.76	390.3	5.42	17.11	4.91	59.91	757.6	9.15	10.23	2.57	17.99	937.1	11.42	9.12
8	0.30	3.57	175.5	1.29	48.76	1.65	19.24	77.0	1.41	78.92	0.56	7.57	239.3	1.08	35.09
9	1.15	18.99	361.2	6.78	22.49	2.75	10.24	566.1	9.50	15.02	2.06	9.72	709.2	8.95	12.14
10	0.98	3.89	156.5	1.66	53.57	7.45	24.03	123.0	0.72	48.12	1.79	14.69	256.4	0.96	31.13
11	4.10	82.57	410.4	6.24	16.04	4.86	63.01	655.2	9.62	11.53	2.85	18.92	852.8	10.50	9.96
12	1.28	6.01	209.4	2.03	39.82	7.84	21.36	120.7	0.94	49.56	2.86	17.45	281.2	0.93	27.94
13	3.46	56.29	461.4	8.88	15.83	5.57	34.16	736.6	15.44	10.99	2.83	16.94	841.8	9.47	10.12
14	0.69	5.34	139.6	1.64	59.10	3.33	11.79	114.2	0.81	61.95	1.23	11.49	234.6	0.83	34.59
15	0.52	5.86	197.0	0.54	42.70	3.14	16.69	183.5	0.72	40.40	0.96	17.27	266.6	0.39	29.90
16	1.58	21.74	440.3	0.44	18.51	5.14	61.56	462.5	1.06	15.42	3.19	45.98	710.0	0.93	11.20
17	3.56	45.19	517.6	9.26	14.79	6.59	53.11	767.3	11.94	10.24	3.29	24.06	763.0	6.84	10.94
18	0.65	4.02	134.7	0.83	62.01	5.26	15.36	121.7	1.46	54.60	1.01	17.59	219.1	0.42	35.50
19	2.01	30.35	449.9	7.89	17.61	4.62	28.46	726.6	1.26	11.29	1.75	21.76	821.9	6.61	10.30
20	0.47	5.57	194.9	0.95	43.14	5.22	18.19	225.1	1.26	32.85	1.55	20.65	303.4	0.79	26.05
21	5.24	104.63	450.2	6.86	14.06	7.71	111.51	767.1	15.36	9.18	3.24	17.89	1010.7	12.97	8.46
22	1.11	6.26	235.3	1.64	35.70	5.22	22.93	193.5	1.17	36.07	3.33	21.22	270.5	0.71	28.73
23	1.55	23.27	599.2	7.55	13.69	7.35	81.50	852.4	8.25	8.84	3.85	29.56	958.0	5.23	8.73
24	1.39	22.62	330.1	8.53	23.99	3.05	15.41	603.7	10.52	13.92	2.31	15.71	728.8	7.97	11.67
25	0.57	4.26	159.7	1.92	52.76	1.44	12.06	149.8	0.88	51.22	1.40	12.06	233.7	0.87	34.53
26	0.36	12.66	403.8	0.89	20.89	6.00	40.55	260.6	0.67	25.85	1.52	36.62	444.9	0.65	17.50
27	1.77	24.35	450.0	8.17	17.94	4.31	30.84	655.3	12.60	12.37	2.76	18.25	777.9	8.68	10.89
28	1.07	7.20	164.1	1.67	49.65	6.12	26.31	155.5	0.70	41.04	1.66	17.25	254.7	0.86	30.92
29	1.55	22.44	592.0	6.36	14.04	6.71	77.23	762.4	6.67	9.81	3.32	40.26	942.0	5.64	8.74
30	1.64	34.89	385.3	8.92	19.91	3.38	18.81	606.6	13.14	13.72	2.49	18.16	811.7	8.89	10.47
31	0.41	3.62	135.9	1.61	62.11	3.77	11.34	107.3	1.34	64.76	2.30	14.38	171.5	1.34	44.06
32	0.83	11.16	286.5	0.77	28.94	6.56	48.23	267.2	1.24	24.39	1.98	40.05	476.8	0.61	16.26
ACT BAG	1.42	15.72	323.7	2.60	25.75	4.23	20.86	445.9	4.72	18.03	1.89	7.68	539.9	3.77	15.91
CALC BAG	1.31	17.04	297.8	4.38	27.00	3.33	23.22	412.7	4.53	19.30	1.68	12.07	544.6	3.77	15.60
33	0.07	0.41	64.3	0.04	136.11	0.05	13.77	53.7	0.03	117.59	0.49	2.10	119.6	0.15	71.30
34	0.81	4.69	778.0	0.47	11.26	4.63	139.59	979.7	0.42	7.31	4.87	22.15	1363.9	1.56	6.28
35	1.41	5.12	567.4	1.71	15.31	0.42	7.77	993.1	0.97	8.82	1.99	7.53	669.0	0.68	12.92
36	0.82	2.86	346.9	0.80	25.07	0.41	6.18	650.4	0.72	13.42	1.43	5.83	461.1	0.47	18.69
37	0.77	1.93	248.4	1.83	34.96	0.71	3.50	331.0	0.69	26.20	0.48	2.15	440.8	0.86	19.91
38	0.66	1.62	216.3	2.88	40.18	1.23	2.95	304.2	2.35	28.38	0.42	2.65	444.8	1.83	19.71
39	0.61	1.80	241.3	5.37	36.07	0.91	2.23	341.0	1.41	25.55	0.81	4.58	464.3	2.26	18.72

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

MODE NO	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	31	1973	FORD	TORI	351	32	1973	FORD	GALA	351	33	1973	FORD	STAW	400
	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	19 45	196 88	1407 9	9 16	4 99	3 95	82 51	1673 8	14 01	4 89	6 96	292 03	1449 1	2 53	4 60
2	8 46	71 15	367 7	0 27	17 53	1 35	89 61	452 0	0 69	14 86	1 47	40 43	503 9	1 31	15 52
3	39 90	467 32	1277 7	1 45	4 15	5 89	277 54	[illegible]	3 43	4 32	6 41	84 91	1901 2	4 71	4 32
4	9 05	135 85	962 3	2 88	7 37	2 59	71 85	1009 2	3 07	7 85	3 54	121 23	1103 7	1 98	6 80
5	3 29	54 06	808 2	3 86	9 82	1 49	25 93	685 6	5 39	12 14	2 10	25 26	872 5	3 00	9 66
6	3 62	21 56	196 3	0 30	36 73	0 49	37 17	249 7	0 73	28 66	1 30	13 01	302 5	1 00	27 14
7	4 71	49 25	1096 3	15 50	7 47	4 17	134 88	1097 6	11 19	6 71	5 19	209 09	1042 1	2 97	6 40
8	2 79	15 57	197 1	0 86	38 51	1 77	16 32	181 7	0 43	41 67	5 70	24 85	316 1	2 81	23 78
9	3 89	44 23	834 2	4 94	9 69	0 90	16 44	819 5	10 22	10 11	2 40	76 77	915 0	2 74	8 51
10	9 06	27 34	217 2	0 66	30 72	1 27	31 92	272 4	0 55	27 18	3 39	19 28	296 9	1 73	26 26
11	5 90	64 24	976 7	11 77	8 10	2 69	76 41	1097 9	11 29	7 24	4 76	182 44	1084 8	2 69	6 40
12	12 40	25 49	201 2	0 47	31 63	2 21	38 86	345 9	0 94	21 44	4 82	25 66	277 2	1 40	26 67
13	6 85	68 54	969 8	12 04	8 07	1 51	32 13	[illegible]	14 85	7 38	4 78	183 61	1097 3	2 54	6 34
14	6 38	25 42	178 6	0 47	37 17	1 71	26 92	191 4	0 42	37 12	4 10	23 27	276 0	1 25	27 26
15	4 94	49 83	241 7	0 45	26 44	1 08	33 55	[illegible]	0 27	24 38	1 27	32 48	383 4	0 70	20 24
16	20 08	210 81	513 2	-0 02	9 77	4 18	231 53	682 8	0 47	8 37	4 80	102 33	869 8	1 03	8 49
17	9 56	102 08	1075 5	7 81	7 01	2 72	59 93	1186 5	11 86	6 88	5 56	199 05	1160 3	2 32	5 95
18	8 10	25 20	168 1	0 55	38 02	1 02	37 85	264 7	0 98	27 11	2 12	26 51	297 0	0 29	25 70
19	8 35	90 95	1018 7	6 73	7 47	2 37	46 02	1068 2	12 96	7 73	4 96	227 43	991 7	1 48	6 50
20	11 86	34 89	258 9	0 18	25 26	1 34	67 22	371 2	0 76	18 45	2 06	33 59	445 8	0 66	17 57
21	8 09	104 20	1156 5	16 13	6 59	4 61	174 17	1187 7	11 86	6 01	6 11	245 35	1198 0	4 93	5 54
22	9 41	36 28	264 1	0 52	25 29	1 40	42 22	305 8	0 66	23 57	2 54	24 98	352 0	0 99	22 23
23	16 06	156 65	1209 4	4 81	5 89	3 00	81 12	[illegible]	6 30	6 25	5 12	182 00	1297 7	2 72	5 55
24	3 92	55 49	834 9	7 59	9 50	1 01	21 18	840 1	10 85	10 13	3 19	106 66	927 9	3 07	8 03
25	4 91	23 59	228 8	0 72	31 53	0 70	19 68	[illegible]	0 57	29 19	3 02	16 64	206 1	1 66	36 71
26	10 72	90 92	386 0	0 29	15 77	1 80	94 20	477 6	0 75	14 06	1 81	53 21	545 1	1 18	13 99
27	5 95	73 16	859 1	8 33	8 94	1 13	28 07	1018 6	9 22	8 32	3 66	126 37	1021 1	2 55	7 21
28	10 91	38 52	214 6	0 13	28 66	1 69	45 10	269 7	0 53	25 65	2 74	26 23	350 2	1 15	22 18
29	14 85	158 21	1009 4	2 82	6 80	2 90	74 45	[illegible]	1 29	6 66	4 47	137 38	1283 4	2 21	5 86
30	4 06	61 98	867 3	9 49	9 08	1 39	33 34	1068 9	13 13	7 88	3 92	156 09	887 0	2 35	7 75
31	4 22	19 44	144 6	0 47	47 09	1 14	26 65	[illegible]	0 47	32 92	3 38	18 01	201 7	1 27	36 87
32	9 41	89 00	411 5	0 78	15 27	1 87	70 53	503 4	0 94	14 31	1 81	27 83	11 2	0 05	146 18
ACT BAG	6 92	55 84	585 0	3 40	12 78	1 85	45 38	645 9	3 69	12 27	2 59	63 00	696 6	2 25	11 04
CALC BAG	5 70	60 63	578 4	4 14	12 83	1 65	41 27	633 3	4 23	12 62	2 83	61 17	651 6	2 02	11 73
33	4 24	36 31	79 3	0 04	59 26	0 84	34 54	[illegible]	0 05	56 30	0 62	0 43	140 4	0 13	62 06
34	48 75	450 13	914 4	0 43	5 00	9 45	414 49	1227 6	0 68	4 65	6 76	73 76	1637 2	1 40	5 00
35	13 02	227 96	578 3	0 38	9 08	4 41	165 78	[illegible]	0 50	8 01	3 81	47 40	842 7	0 74	9 56
36	5 88	161 64	490 9	0 39	11 62	3 00	109 57	569 5	0 37	11 81	2 30	30 09	557 0	0 47	14 51
37	1 66	69 25	459 6	0 62	15 47	0 78	12 27	[illegible]	0 68	17 58	1 19	3 46	454 0	1 45	19 16
38	1 29	30 66	528 1	0 79	15 29	0 82	5 10	411 5	1 81	19 63	0 87	3 70	439 7	3 24	19 80
39	1 33	32 00	457 3	4 13	17 34	0 99	6 45	[illegible]	1 55	17 43	1 22	6 04	547 4	1 67	15 83

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	34	1973	FORD	GALA	400	35	1973	MAZD	RX-2	70	36	1973	MERC	MONG	351
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	7.59	13.70	1719.2	23.61	5.03	15.18	254.08	[illegible]	3.97	6.24	5.98	30.77	1679.5	12.23	5.08
2	1.85	6.93	519.1	1.11	16.56	1.36	6.85	387.2	0.29	22.07	1.82	16.57	556.6	0.27	15.08
3	9.58	13.65	1657.4	3.91	5.19	6.40	160.32	[illegible]	1.56	5.82	5.11	27.46	1524.8	2.93	5.60
4	2.61	6.55	1025.5	6.24	8.50	2.12	37.62	764.3	2.91	10.69	3.11	27.84	1045.4	3.37	8.08
5	1.59	5.30	842.0	5.78	10.38	3.47	42.22	580.3	3.21	13.92	2.78	18.68	862.2	5.74	9.86
6	1.41	4.56	242.2	2.14	34.97	0.32	2.99	205.1	0.39	42.11	3.04	8.40	258.8	0.92	31.51
7	2.65	20.40	1108.5	24.13	7.72	13.19	271.61	537.7	1.53	8.82	4.72	77.00	1118.4	15.99	7.08
8	2.06	4.29	232.3	3.45	36.14	0.86	13.57	192.8	0.52	40.94	2.68	8.66	507.3	0.25	16.76
9	1.44	8.92	835.3	9.83	10.39	3.31	39.96	555.4	7.56	15.34	2.12	16.01	742.6	8.47	11.46
10	2.20	6.91	376.3	2.78	22.52	0.24	2.72	226.9	0.43	38.26	3.62	11.15	330.7	0.55	24.67
11	1.72	9.96	1109.2	19.36	7.85	11.33	208.80	556.9	3.72	9.64	2.94	27.07	1090.1	14.68	7.77
12	4.28	8.42	364.0	3.92	22.71	1.46	14.79	202.9	0.59	38.45	6.34	14.43	344.0	0.67	22.95
13	1.84	8.72	1172.2	16.73	7.45	16.47	107.62	671.7	1.25	9.91	2.64	19.10	1188.2	13.54	7.24
14	2.62	5.25	179.8	1.41	45.21	0.26	3.46	191.4	0.28	44.90	4.40	10.30	240.8	0.56	32.76
15	1.29	11.44	352.4	0.73	23.70	0.51	5.07	254.5	0.19	33.61	1.27	14.36	365.8	0.73	22.62
16	4.85	15.16	779.4	0.71	10.84	0.86	15.01	762.4	0.19	11.25	3.59	30.52	842.5	0.47	9.84
17	3.41	13.99	1163.2	13.68	7.42	8.80	126.89	710.2	3.72	9.10	3.80	33.26	1196.3	11.52	7.04
18	1.85	6.52	226.0	0.91	36.66	0.48	10.86	201.6	0.23	40.31	3.77	13.13	322.5	0.70	25.11
19	2.22	12.92	1060.3	11.35	8.16	7.51	87.03	700.8	1.04	10.29	3.25	26.21	1077.1	10.63	7.86
20	2.24	9.02	322.0	1.16	25.85	1.10	13.82	224.5	0.33	35.54	5.20	27.45	446.5	0.97	17.54
21	3.66	53.70	1327.9	25.76	6.23	15.91	308.89	596.0	1.47	7.84	6.69	172.33	1292.9	12.34	5.60
22	2.88	8.20	302.4	1.32	27.36	1.86	16.49	228.7	0.62	34.06	5.78	13.22	347.3	0.66	22.97
23	3.83	14.98	1321.7	10.29	6.54	14.25	146.35	929.8	2.62	7.37	5.13	44.32	1406.9	7.46	5.95
24	1.30	8.36	909.6	11.31	9.58	4.63	77.71	602.3	3.13	12.01	2.14	19.12	942.9	9.18	9.06
25	2.19	5.97	195.7	1.92	41.85	0.37	6.54	212.8	0.45	39.60	3.52	10.23	272.2	0.57	29.64
26	1.90	14.29	513.8	1.53	16.37	1.04	18.12	389.8	0.18	21.21	1.87	25.90	591.3	0.76	13.91
27	1.78	10.62	1000.1	11.65	8.68	6.45	71.54	713.6	1.38	10.49	2.53	18.98	994.0	8.35	8.60
28	2.65	8.32	341.9	2.27	24.42	1.61	17.60	192.8	0.22	39.34	6.27	12.57	288.0	0.80	27.09
29	4.34	15.25	1167.1	11.00	7.37	24.26	133.10	845.8	2.54	7.70	4.68	50.58	1334.1	4.91	6.21
30	1.45	11.15	878.8	16.20	9.85	6.43	78.54	587.7	4.00	12.13	2.21	22.02	1043.7	12.68	8.18
31	2.85	6.21	242.8	3.79	33.93	0.72	11.89	182.2	0.41	43.69	4.65	10.43	244.0	0.86	32.26
32	1.97	11.86	552.6	1.90	15.37	1.35	14.74	514.9	0.33	16.37	2.21	25.89	653.5	1.27	12.66
ACT BAG	1.89	6.67	651.4	6.09	13.29	3.64	50.62	467.1	1.47	15.90	2.79	16.57	688.5	4.11	12.27
CALC BAG	1.71	7.68	649.2	6.18	13.31	3.48	49.90	458.0	1.40	16.21	2.90	18.74	661.5	4.66	12.68
33	0.38	0.63	129.9	0.06	67.22	0.26	11.87	68.1	0.01	101.31	0.62	0.39	125.7	0.09	69.17
34	5.50	3.35	1138.3	0.78	7.64	-0.08	9.11	1332.7	0.39	6.59	8.32	5.19	1502.2	0.94	5.78
35	3.48	1.55	746.0	0.57	11.69	-0.09	0.26	1130.1	0.58	7.85	2.13	11.45	954.4	0.68	9.06
36	2.04	1.55	528.3	0.38	16.52	-0.05	0.69	739.0	0.37	11.99	1.58	7.82	624.7	0.51	13.82
37	0.72	2.18	456.3	1.01	19.21	0.0	4.04	477.0	0.30	18.36	1.54	2.46	451.1	1.08	19.30
38	0.35	2.02	456.2	2.05	19.27	0.04	5.09	384.5	0.46	22.61	1.36	3.54	446.0	3.50	19.47
39	0.45	2.45	521.2	2.08	16.86	0.23	8.09	391.6	1.02	21.91	1.33	7.19	500.4	2.66	17.20

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	37	1973	OLDS	CUTL	350	38	1973	OLDS	98	455	39	1973	PLYM	DUST	318
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	5 31	38 51	1542 9	9 60	5 48	2 45	22 96	2297 5	11 20	3 79	7 23	137 15	799 8	7 33	8 55
2	1 32	12 96	571 8	0 91	14 88	1 48	6 94	528 7	0 97	16 31	2 70	17 23	409 0	1 38	19 96
3	5 03	27 28	1660 1	3 19	5 16	4 60	27 43	2319 6	4 25	3 73	12 97	206 51	733 5	2 90	5 07
4	1 97	13 12	985 4	3 84	8 77	1 09	21 07	1499 6	3 76	5 78	4 89	52 03	748 4	4 99	10 50
5	1 71	10 64	737 6	4 46	11 68	1 61	15 01	1091 8	5 46	7 92	3 01	25 21	507 4	4 31	15 95
6	1 21	5 67	487 6	0 90	17 74	3 49	2 80	285 5	0 53	29 34	1 18	5 25	174 5	1 52	47 60
7	3 43	32 94	935 6	11 67	8 89	7 02	262 71	1370 1	6 20	4 92	3 09	27 20	636 5	13 48	12 86
8	0 44	4 00	283 1	1 13	30 53	6 58	5 93	278 0	0 90	28 80	1 14	5 32	188 7	3 36	44 22
9	1 58	6 33	565 4	3 64	15 29	3 07	42 86	1068 1	7 82	7 75	2 32	18 05	543 2	10 73	15 33
10	1 96	5 50	385 1	0 96	22 19	4 30	6 23	273 9	0 67	29 85	3 31	9 65	181 4	2 11	42 87
11	1 94	11 84	937 5	9 83	9 22	4 52	111 16	1346 8	8 72	5 78	3 25	33 58	636 9	9 36	12 68
12	4 91	8 39	311 0	0 73	26 12	6 75	5 47	281 1	1 41	28 52	5 52	12 60	178 3	3 04	41 17
13	2 06	10 46	1002 7	9 02	8 65	4 56	124 96	1337 6	8 77	5 73	4 22	47 20	633 0	9 98	12 32
14	2 72	4 93	215 5	0 51	38 28	3 73	4 37	237 2	0 63	34 68	1 72	7 25	161 4	1 97	49 79
15	0 87	10 25	348 5	0 80	24 16	1 27	5 70	347 5	0 80	24 62	1 93	11 33	203 1	0 63	39 09
16	2 31	18 09	880 1	1 06	9 69	2 38	15 19	865 5	1 06	9 90	5 94	64 25	490 0	0 93	14 56
17	2 42	14 92	1079 2	7 82	7 99	3 25	36 16	1542 9	9 79	5 44	8 51	81 10	641 9	7 07	11 10
18	1 56	6 48	266 6	0 67	31 29	2 98	4 34	288 8	0 64	29 10	2 85	4 25	157 5	1 39	51 25
19	1 92	18 16	970 2	7 83	8 83	2 66	30 66	14[illegible] 9	9 65	5 80	3 99	41 91	628 2	7 21	12 56
20	1 92	10 79	369 4	0 94	22 61	3 73	6 01	370 8	0 84	22 64	3 94	9 90	248 1	1 73	37 32
21	3 99	28 90	1214 8	15 75	6 97	8 63	269 09	1488 0	6 93	4 63	5 31	75 61	719 3	12 32	10 38
22	2 32	8 17	320 0	0 71	26 09	4 02	5 74	333 4	0 80	24 99	3 71	13 94	217 0	2 50	35 41
23	3 76	19 99	1168 5	7 74	7 32	2 77	30 26	1916 7	8 23	1 50	7 01	95 16	789 6	6 29	9 23
24	1 76	9 55	789 4	7 81	10 96	3 22	52 03	1121 4	7 88	7 31	2 57	26 23	531 3	10 86	15 29
25	2 18	5 65	252 0	0 67	35 15	3 62	2 78	301 9	0 81	27 91	1 07	4 41	194 5	2 63	43 34
26	1 31	14 22	596 6	1 96	14 24	2 12	9 52	572 3	2 13	14 94	1 33	7 41	349 7	1 66	24 07
27	2 00	19 66	928 6	7 43	9 19	2 53	36 44	1266 6	8 43	6 66	3 93	44 73	606 3	10 11	12 88
28	2 46	7 46	311 0	1 13	26 85	4 36	4 99	317 4	0 64	24 05	4 77	13 31	171 5	2 50	42 77
29	3 96	30 71	1033 2	6 40	8 11	2 71	38 63	1674 4	4 70	5 23	7 00	85 16	695 7	4 89	10 42
30	2 11	15 24	890 4	10 16	9 64	4 21	130 01	11[illegible]	7 31	6 40	2 52	25 81	575 0	11 70	14 23
31	2 82	6 49	212 3	0 64	38 36	5 41	4 43	3[illegible] 1	1 03	24 84	1 39	8 25	200 1	2 66	40 82
32	1 83	20 75	580 4	1 38	14 34	2 47	7 90	602 0	1 24	14 26	3 47	11 66	431 0	0 93	19 28
ACT BAG	1 90	7 40	584 4	3 61	14 74	2 67	38 03	803 8	3 31	10 18	3 47	25 77	416 0	4 72	18 99
CALC BAG	1 56	8 96	622 5	3 68	13 84	2 79	34 26	765 7	3 64	10 71	2 57	23 83	420 2	5 65	19 05
33	0 19	1 59	143 7	0 10	60 47	0 27	0 56	1[illegible] 2	0 10	68 84	0 68	17 23	63 3	0 04	95 88
34	5 31	23 68	1656 6	1 76	5 19	3 97	7 01	1539 5	1 07	5 68	5 90	94 95	701 1	1 86	10 21
35	2 40	11 98	855 3	0 80	10 07	1 26	4 16	891 3	0 70	9 81	3 43	103 57	341 8	0 24	17 22
36	0 88	4 19	685 3	0 65	12 78	0 62	2 69	712 5	0 66	12 35	1 71	47 53	315 6	0 23	22 43
37	0 53	2 99	478 8	0 95	18 29	0 93	2 54	4[illegible] 0	1 33	18 34	0 51	2 86	466 7	2 92	18 77
38	0 37	2 66	455 9	1 51	19 24	1 11	3 00	493 1	2 07	17 70	0 54	1 91	310 3	3 11	28 18
39	0 29	3 00	507 9	1 96	17 28	0 67	3 87	5[illegible] 1	2 72	15 06	1 08	8 85	367 5	6 71	23 06

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D4

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	40	1973	PLYM	FURY	360	41	1973	PONT	VENT	350	42	1973	PONT	FIRE	400
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	4.19	62.23	1445.6	14.59	5.70	72.42	254.52	1493.2	11.20	4.18	7.63	157.06	1316.1	6.12	5.59
2	1.28	35.81	596.4	1.08	13.51	22.17	10.26	418.5	1.08	17.58	3.11	76.77	200.2	0.28	21.61
3	2.34	73.62	1299.6	4.35	6.24	51.38	108.66	1207.3	5.08	5.76	8.96	270.86	1010.6	1.96	4.06
4	2.30	28.89	908.1	7.55	9.24	30.43	20.97	911.1	6.18	8.53	4.22	77.14	642.3	2.17	11.12
5	2.07	28.92	691.9	9.02	11.93	27.03	23.40	739.0	7.46	10.30	2.01	20.82	621.4	1.99	13.44
6	0.89	13.72	306.9	2.74	26.79	15.33	4.10	231.6	1.72	30.97	4.19	15.34	150.9	1.47	47.15
7	3.77	71.65	927.0	12.10	8.44	47.89	232.28	889.3	6.83	6.31	4.03	36.08	732.2	18.38	11.07
8	0.77	8.31	217.8	2.27	38.04	16.78	16.93	218.8	2.63	29.72	1.95	15.81	162.2	2.37	45.92
9	1.93	31.85	763.1	9.67	10.83	20.71	40.02	800.5	13.80	9.16	3.17	17.02	530.6	14.97	15.64
10	0.90	13.87	280.3	2.32	29.11	16.33	11.78	224.1	2.17	30.14	4.93	25.77	222.5	2.78	31.85
11	2.48	55.76	996.3	12.01	8.13	43.95	134.92	904.1	11.16	7.07	4.15	30.61	675.9	18.49	12.04
12	1.07	16.89	314.7	3.03	25.72	19.15	15.15	153.7	2.79	37.32	8.60	29.16	159.3	2.03	39.20
13	2.26	43.38	979.1	11.87	8.42	41.14	121.56	486.5	9.31	10.98	3.21	31.45	801.5	5.29	10.31
14	1.07	12.30	188.1	1.30	42.09	13.27	11.73	183.2	0.85	36.41	4.26	15.66	217.5	0.42	34.72
15	0.58	28.83	364.3	0.42	21.57	14.69	4.45	281.5	0.79	26.49	3.18	34.84	206.2	0.92	32.75
16	1.43	89.38	832.3	0.41	9.08	35.48	14.89	698.2	1.57	10.54	8.46	134.35	469.1	0.49	12.55
17	2.74	47.88	1016.8	12.94	8.06	38.33	68.25	965.0	8.81	7.43	4.11	69.70	841.5	4.63	9.21
18	0.67	17.90	287.6	2.92	27.92	13.92	4.69	249.2	0.66	29.51	3.36	35.62	188.2	0.21	34.83
19	2.36	36.88	938.4	11.94	8.84	38.74	65.38	890.6	13.01	7.95	5.14	62.90	672.7	14.95	11.27
20	0.85	25.41	364.5	2.88	21.80	21.24	5.89	314.8	1.59	22.67	6.35	42.99	227.8	1.75	28.13
21	4.26	146.53	1100.9	11.09	6.60	52.75	218.18	948.9	6.43	6.08	4.46	92.06	877.1	6.20	8.57
22	0.52	17.29	297.8	2.49	27.17	15.62	17.33	259.2	1.14	26.42	4.79	39.22	247.5	0.56	27.27
23	2.89	38.16	1102.5	15.02	7.58	43.77	41.95	1087.5	9.74	6.87	5.65	118.85	867.6	2.87	8.28
24	1.80	33.86	741.8	10.15	11.08	32.52	63.90	758.8	8.39	9.22	2.69	46.28	632.0	3.58	12.44
25	0.93	12.28	235.5	2.29	34.42	16.04	10.47	193.4	1.77	34.04	3.57	34.96	194.4	2.40	34.05
26	1.09	51.07	543.8	1.80	14.15	30.12	8.38	451.9	1.38	15.83	6.05	94.35	300.6	1.54	18.96
27	1.94	38.22	874.5	11.48	9.43	34.92	32.63	837.6	9.96	8.88	3.35	62.72	679.9	3.51	11.25
28	0.70	20.12	288.7	1.46	27.52	16.76	9.10	223.9	0.92	30.46	5.58	48.76	187.7	0.54	31.47
29	2.79	40.02	948.3	14.01	8.70	41.98	48.03	1007.8	6.92	7.30	5.74	166.07	784.7	1.47	8.34
30	2.00	41.71	865.5	11.69	9.47	35.30	103.62	812.0	7.58	8.17	3.28	74.16	689.9	3.95	10.87
31	1.14	12.16	291.4	2.93	28.26	11.51	9.46	240.6	2.10	30.40	5.75	29.22	111.8	1.43	50.45
32	1.19	52.00	560.7	1.23	13.74	28.47	9.69	525.4	2.20	14.07	6.35	105.40	305.2	0.80	18.08
ACT BAG	1.18	20.17	605.3	5.20	13.85	24.75	42.57	608.8	5.24	11.77	3.66	50.02	531.2	3.50	14.28
CALC BAG	1.50	26.15	577.0	6.51	14.25	24.93	37.35	542.5	5.24	13.05	3.55	45.85	448.5	4.27	16.69
33	0.38	11.85	126.6	0.07	60.61	3.93	0.70	109.3	0.13	72.21	0.95	25.07	80.2	0.05	72.41
34	2.75	120.98	1626.0	0.95	4.86	56.47	12.33	1331.5	2.77	5.80	9.62	278.51	956.0	0.59	6.23
35	0.71	33.67	890.6	0.46	9.48	26.43	2.59	608.4	1.21	11.43	6.87	135.17	487.2	0.38	12.30
36	0.48	24.54	562.2	0.33	14.74	19.06	2.61	487.3	0.86	16.08	4.81	74.70	370.3	0.28	17.65
37	0.64	8.33	414.2	1.32	20.67	15.32	2.55	416.0	1.54	18.94	2.10	36.81	310.3	0.66	23.68
38	1.34	6.92	414.5	5.65	20.66	17.95	4.26	437.3	3.91	17.72	1.46	9.23	348.1	3.48	24.17
39	1.05	3.27	441.9	7.96	19.71	17.82	5.35	497.2	6.51	15.93	2.10	33.68	385.9	5.04	19.92

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

MODE NO	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	43	1973	TOYO	CELI	120	44	1973	VOLK	BEET	97	45	1973	VOLK	BUS	103
	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	3 93	44 77	793 9	13 89	10 12	9 70	116 21	613 4	9 59	10 36	6 38	207 80	886 7	7 96	7 20
2	1 61	31 42	166 9	1 32	40 10	3 17	45 93	208 4	0 83	30 54	1 78	29 51	348 5	0 88	22 16
3	9 16	100 67	703 9	3 16	9 96	7 16	240 87	678 9	3 27	8 22	4 32	153 52	954 5	5 25	7 34
4	3 67	64 89	478 2	8 79	15 00	5 06	110 64	479 4	5 01	13 26	2 49	64 73	610 9	7 50	12 32
5	1 94	22 28	405 2	8 71	19 88	4 51	52 04	389 4	5 71	18 28	1 99	47 17	491 0	6 19	15 53
6	0 63	8 71	95 5	1 91	79 85	1 28	8 40	114 3	1 91	67 48	0 45	9 81	161 2	1 26	49 85
7	2 74	44 86	571 1	10 08	13 65	4 48	40 70	464 0	5 16	16 37	3 45	137 65	515 9	4 90	11 94
8	0 44	4 25	104 6	3 01	78 76	1 08	11 97	124 8	2 82	60 38	1 74	9 66	152 0	2 62	51 41
9	1 41	12 79	368 5	9 49	22 58	1 93	28 93	415 3	6 24	19 01	1 89	60 16	427 3	6 04	16 82
10	1 07	10 36	134 6	2 36	57 53	1 44	24 02	81 7	1 10	71 59	0 66	9 96	199 7	1 43	40 81
11	2 68	31 96	507 0	12 72	15 69	4 96	57 34	413 2	7 73	16 17	3 12	136 66	492 4	4 76	12 38
12	0 92	8 35	105 6	2 23	72 97	2 03	23 54	142 4	3 08	47 76	1 47	11 71	183 1	1 60	43 05
13	2 78	23 01	551 5	15 05	14 88	6 37	76 83	416 1	7 29	15 12	2 55	103 36	570 3	8 30	11 98
14	0 73	11 13	88 0	1 67	82 34	1 37	17 82	95 6	1 87	69 37	0 64	8 70	144 0	1 01	55 59
15	1 55	27 70	106 0	0 79	57 48	1 70	34 94	179 4	1 03	46 79	0 49	13 00	209 5	1 18	38 34
16	4 73	97 48	257 9	1 04	20 83	6 35	149 36	295 0	1 04	16 14	1 40	33 08	523 8	1 75	15 30
17	3 47	33 15	583 4	14 09	13 73	10 28	83 95	475 0	7 82	13 88	2 61	99 57	652 0	9 24	10 87
18	0 77	12 16	87 7	1 51	81 26	1 96	24 77	123 2	1 60	52 74	0 49	10 77	194 3	0 89	41 71
19	2 69	32 86	528 0	13 31	15 09	6 45	79 91	467 9	6 76	14 46	2 07	72 39	614 9	8 41	12 07
20	1 11	18 05	135 1	2 01	53 14	2 43	30 55	172 5	2 51	38 89	0 59	19 19	231 6	1 32	33 67
21	3 91	63 62	586 9	12 46	12 69	8 17	72 55	452 1	7 18	14 99	4 44	146 53	560 9	5 30	11 02
22	1 22	16 48	122 3	1 94	58 38	2 25	31 50	131 5	0 91	47 18	0 68	14 32	221 9	1 93	36 00
23	4 15	50 88	616 5	15 03	12 51	10 02	153 28	469 0	5 77	11 97	3 16	100 56	749 1	9 71	9 68
24	1 63	18 12	422 3	11 58	19 47	3 11	50 40	418 4	6 69	17 49	2 22	110 39	482 8	5 62	13 38
25	0 55	9 55	105 5	2 29	72 58	1 01	17 61	177 5	2 50	56 03	0 55	12 56	168 7	1 86	46 66
26	2 08	46 22	164 7	2 31	36 39	2 27	40 53	279 9	1 58	25 30	0 69	30 41	360 4	1 30	21 63
27	2 12	17 80	461 6	13 59	17 88	18 69	51 85	415 1	8 93	15 15	2 40	102 58	547 3	7 79	12 39
28	1 87	16 73	104 4	1 50	64 97	1 74	30 66	119 2	1 74	51 33	0 77	15 81	198 5	2 02	39 30
29	4 19	62 44	530 8	12 02	13 82	7 11	146 39	477 1	4 52	17 16	2 77	111 71	800 9	9 58	9 01
30	2 14	22 60	503 8	12 19	16 25	3 70	46 62	464 1	7 25	16 16	2 09	129 81	505 1	5 38	12 40
31	0 41	5 56	94 2	2 68	85 14	1 04	11 94	76 7	3 10	89 89	2 79	10 62	142 4	1 95	52 87
32	2 55	55 18	190 0	1 37	31 16	4 66	80 31	217 6	0 81	24 75	1 50	53 96	363 0	1 00	19 61
ACT. BAG	1 98	18 75	305 3	5 70	26 03	3 30	43 15	280 3	3 75	24 75	1 48	49 94	366 3	3 80	19 75
CALC BAG	1 60	21 63	303 2	6 15	25 93	3 38	33 50	289 4	4 26	25 16	1 36	45 20	377 0	3 73	19 62
33	0 25	5 31	34 6	0 01	203 16	0 59	14 14	43 1	0 02	132 11	0 09	6 82	67 0	0 04	113 75
34	2 89	50 27	510 8	0 18	14 82	7 45	175 25	511 4	0 24	10 95	0 38	32 07	1173 6	1 22	7 24
35	4 10	114 13	443 4	0 88	13 96	3 37	61 43	459 2	0 61	15 67	0 63	17 03	842 1	2 16	10 19
36	2 22	68 03	273 5	0 54	22 91	2 20	35 10	292 0	0 34	25 06	0 98	88 74	1110 6	2 61	7 08
37	1 62	37 24	229 4	1 51	30 29	1 33	7 95	241 7	1 48	34 35	0 36	8 72	305 7	1 47	27 69
38	0 98	9 55	222 0	3 19	36 97	0 96	3 57	230 1	3 09	37 18	0 46	7 15	242 8	2 68	34 73
39	0 55	2 30	269 3	5 88	32 32	1 03	5 65	262 3	5 24	32 34	0 50	5 59	277 0	3 45	30 89

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
MODE	46	1972	BUIC	SPOR	350	47	1972	BUIC	LIMI	455	48	1972	CHEV	VEGA	140
NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	2.46	54.16	1401.0	14.71	5.94	3.35	552.81	171.0	14.87	8.43	8.80	94.04	339.8	7.23	17.22
2	1.07	13.65	462.6	1.02	18.21	1.00	185.66	54.0	1.24	25.41	3.21	12.27	205.5	1.69	37.78
3	3.04	45.43	1565.9	7.69	5.39	3.98	584.83	154.2	6.84	8.17	6.83	44.44	823.2	4.90	9.70
4	0.96	20.27	906.4	7.81	9.43	1.21	355.13	44.2	6.21	14.64	2.60	35.79	449.9	4.60	17.25
5	1.90	13.45	752.5	12.92	11.38	2.28	241.42	43.5	9.82	20.63	2.47	21.20	266.4	8.72	28.85
6	2.65	7.50	214.1	1.77	37.88	2.18	101.76	19.1	1.53	47.74	1.91	5.37	314.0	3.36	27.02
7	0.77	239.92	1008.9	5.72	6.35	6.02	288.32	1012.0	5.66	5.98	3.59	48.01	122.8	7.72	42.34
8	2.63	9.12	183.3	3.70	43.09	3.22	73.43	16.7	1.81	62.39	0.99	5.13	435.3	5.78	19.88
9	1.38	23.38	779.8	12.53	10.81	3.03	238.00	174.8	10.43	15.89	0.69	9.45	325.1	9.01	25.94
10	3.63	7.52	309.1	3.31	26.70	3.46	94.48	19.4	1.72	49.64	1.32	6.26	139.2	2.77	57.92
11	2.16	84.54	942.7	13.31	8.20	2.69	281.17	402.0	11.55	10.41	5.49	55.34	442.1	7.39	16.24
12	4.46	10.43	358.0	3.88	22.84	9.49	84.51	23.6	3.72	47.59	1.28	7.20	113.5	3.11	68.86
13	1.34	37.72	1043.3	15.21	8.02	2.34	318.80	226.1	13.69	12.08	4.82	49.07	472.5	7.65	15.71
14	3.33	8.11	164.1	1.77	47.37	4.54	79.71	18.1	1.78	56.26	0.89	5.87	109.0	0.94	73.30
15	1.41	15.33	304.0	1.39	26.69	1.19	109.56	78.7	0.91	43.38	0.76	10.93	154.2	0.92	51.07
16	1.73	37.72	768.8	1.57	10.65	1.66	291.74	80.9	1.18	16.30	1.00	16.91	309.5	0.25	26.16
17	2.01	35.52	1071.5	15.31	7.83	2.75	337.42	195.0	12.02	12.09	8.24	88.30	496.9	5.58	13.41
18	2.62	10.78	279.1	1.57	29.16	2.06	85.84	21.8	0.83	54.37	1.18	8.31	129.2	1.40	60.80
19	0.96	23.81	1041.5	12.60	8.30	2.60	320.91	253.1	11.09	11.59	6.35	48.34	142.2	5.83	37.25
20	2.06	14.31	292.7	2.39	27.59	2.05	118.15	30.2	0.95	39.91	0.95	12.11	787.8	1.36	10.96
21	4.03	186.17	1233.9	9.35	5.77	7.22	331.36	1089.4	7.00	5.44	9.77	148.88	138.2	3.84	22.02
22	5.16	16.42	263.0	0.34	29.08	4.75	88.90	23.0	1.05	49.94	1.08	8.66	361.1	1.45	23.47
23	1.95	34.43	1292.6	14.36	6.56	2.90	415.93	132.7	11.43	11.16	3.57	50.14	915.3	4.81	8.83
24	1.79	48.58	317.0	9.38	9.87	2.19	233.73	141.4	12.02	17.21	1.78	41.62	160.9	7.19	38.27
25	3.55	12.56	191.4	9.83	39.90	2.79	81.53	16.7	1.44	57.75	0.47	8.71	161.3	2.39	50.29
26	2.24	26.54	574.2	1.78	14.25	1.80	192.64	56.3	3.05	24.33	0.69	18.23	241.3	1.54	32.61
27	1.32	28.80	940.8	16.17	8.96	2.02	286.51	91.2	15.07	16.20	2.23	47.39	418.4	5.63	17.75
28	4.41	10.73	237.4	2.23	33.09	2.96	89.29	30.8	1.20	49.17	0.58	10.05	155.6	0.94	51.24
29	0.34	33.67	1117.4	12.12	7.58	3.11	392.55	146.8	11.01	11.47	4.07	90.06	596.5	2.57	11.82
30	0.61	73.09	1032.6	11.90	7.72	3.48	269.82	384.4	9.79	10.83	1.90	38.00	440.9	7.15	17.52
31	2.27	8.82	145.8	6.58	53.18	5.09	63.40	21.0	2.61	64.90	0.51	10.13	142.9	1.42	55.32
32	0.51	24.55	481.4	2.89	17.02	2.07	184.20	79.3	3.01	23.65	0.78	26.92	267.1	0.80	28.45
ACT BAG	2.20	28.17	657.5	5.68	12.52	2.35	37.27	628.4	4.76	12.78	1.80	22.08	344.6	3.93	23.05
CALC BAG	1.79	27.31	608.2	6.68	13.51	2.42	125.18	236.4	5.33	20.14	1.75	22.99	291.6	4.30	26.63
33	0.26	2.13	122.2	0.15	70.21	0.48	5.84	66.7	0.08	114.74	0.06	1.87	42.1	0.02	196.19
34	2.41	17.68	1487.0	1.66	5.83	5.70	75.68	789.6	0.93	9.58	1.99	45.39	887.1	2.32	9.20
35	1.02	9.11	753.4	0.76	11.51	1.18	9.66	643.6	1.29	13.39	0.15	2.64	668.7	0.99	13.16
36	0.48	5.08	665.6	0.95	13.15	0.87	8.61	405.7	0.87	21.03	0.38	4.26	448.0	0.73	19.48
37	0.92	3.77	411.9	1.61	21.09	1.09	5.06	242.8	1.49	34.92	0.45	4.48	260.1	2.29	33.05
38	0.69	3.53	443.5	3.68	19.67	0.73	3.73	257.7	2.08	33.38	0.31	4.95	223.5	3.64	38.22
39	0.52	4.09	508.7	6.52	17.18	0.65	4.45	267.1	1.63	32.14	0.13	5.78	267.8	5.35	32.01

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	49	1972	CHEV	NOVA	250	50	1972	CHEV	MALI	307	51	1972	CHEV	NOVA	350
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	3.00	56.17	1396.8	13.34	5.94	7.21	47.98	1344.7	17.62	6.15	2.04	78.39	1317.1	8.56	6.13
2	0.69	4.35	358.4	0.68	24.16	2.39	35.06	361.3	1.25	20.93	0.32	21.69	386.3	0.28	21.06
3	3.65	74.19	1324.3	3.65	6.11	8.82	92.77	1310.0	1.89	5.98	1.91	92.54	1430.9	1.97	5.61
4	0.43	5.97	888.2	5.33	9.87	4.01	38.90	779.1	7.19	10.41	0.59	38.80	830.4	3.37	9.94
5	0.97	17.24	709.2	5.58	12.00	2.61	14.26	634.6	7.91	13.34	0.57	17.12	631.5	5.55	13.44
6	0.37	2.28	239.3	1.31	36.37	1.32	23.99	167.8	2.45	42.33	0.38	7.56	206.3	0.74	40.46
7	3.04	105.95	721.9	3.66	9.88	6.05	151.30	829.7	7.97	8.17	2.14	90.88	788.6	8.20	9.46
8	0.93	2.15	166.7	1.49	51.28	1.66	9.18	175.2	3.02	45.34	1.45	8.05	167.7	2.38	47.99
9	0.58	8.69	677.2	5.30	12.81	2.70	20.21	664.8	9.82	12.59	1.18	15.92	544.4	8.64	15.49
10	0.51	2.77	285.8	2.89	30.42	1.75	17.49	187.5	1.94	40.25	0.33	9.67	219.9	1.11	37.59
11	1.37	43.89	888.3	7.58	9.23	4.35	73.54	814.6	10.32	9.40	0.87	25.95	704.1	8.58	11.87
12	0.86	4.21	244.7	2.04	34.94	2.88	21.29	201.2	2.71	36.41	1.87	13.48	218.5	3.72	36.14
13	0.94	31.58	959.8	9.81	8.77	3.84	49.13	922.3	17.96	8.77	0.68	28.07	823.2	8.88	10.21
14	0.27	2.92	204.5	1.99	42.28	1.42	18.38	155.9	1.87	46.89	0.30	9.34	199.6	1.03	41.24
15	0.46	5.72	267.0	1.17	31.99	1.95	36.03	241.6	1.84	29.16	0.58	20.64	264.6	0.55	29.50
16	0.49	15.22	722.3	0.99	11.87	5.40	92.77	588.3	0.71	11.81	0.31	61.16	687.1	0.49	11.32
17	0.84	31.36	1026.5	7.65	8.23	4.71	52.93	964.9	12.58	8.35	0.70	34.07	881.0	6.85	9.48
18	0.26	4.35	227.7	1.01	37.71	1.57	22.00	185.4	2.24	39.46	0.06	13.04	280.2	0.56	29.50
19	1.79	67.94	921.9	4.49	8.58	4.06	48.85	860.8	11.61	9.34	0.74	44.16	789.1	6.19	10.31
20	0.22	6.02	303.8	1.65	28.27	2.06	35.45	250.1	0.87	28.41	0.04	20.51	340.3	0.78	23.82
21	3.23	131.36	886.8	2.85	8.04	6.68	155.60	1052.4	11.21	6.73	1.90	104.60	888.8	7.77	8.38
22	0.44	4.10	254.4	1.35	33.85	2.00	22.43	234.9	2.11	32.10	0.12	13.96	272.3	1.32	30.13
23	0.69	24.48	1134.5	7.72	7.55	4.97	45.68	1088.4	10.85	7.55	0.81	54.52	1016.3	6.65	8.04
24	0.41	16.66	739.0	7.12	11.58	2.53	14.44	724.9	13.15	11.75	0.83	33.20	650.0	8.06	12.59
25	0.28	2.98	197.1	1.66	43.80	1.41	15.09	182.7	2.49	42.10	0.30	11.38	235.1	1.44	34.95
26	0.72	9.54	382.6	0.95	22.19	2.69	52.21	438.2	1.22	16.79	0.63	43.22	423.6	1.23	17.98
27	0.64	25.27	789.4	7.05	10.68	2.99	25.16	837.2	12.85	10.01	0.50	32.17	753.6	7.04	11.02
28	0.27	5.00	225.8	1.43	37.85	1.97	25.36	188.1	1.47	37.90	0.27	19.71	254.8	1.14	30.97
29	0.83	24.61	980.2	6.26	8.69	4.67	39.35	971.7	9.05	8.47	0.68	78.51	983.9	3.68	8.00
30	1.29	50.46	769.8	5.61	10.40	3.36	45.12	837.1	12.17	9.66	1.66	72.28	690.4	7.85	10.97
31	0.60	3.55	190.5	1.64	44.84	2.41	18.00	135.7	2.28	51.72	0.19	11.87	258.2	2.00	31.98
32	0.93	11.90	397.3	0.50	21.19	3.45	58.31	415.0	1.90	17.15	2.62	52.01	521.6	1.28	14.51
ACT BAG	0.68	27.73	501.6	3.82	16.22	2.51	27.36	501.4	5.03	16.07	0.64	20.64	567.3	3.51	14.75
CALC BAG	0.87	19.10	506.1	4.14	16.47	2.62	28.36	500.5	5.92	16.04	0.72	24.51	491.7	3.80	16.67
33	0.39	12.29	69.6	0.04	99.41	0.75	11.61	94.6	0.07	77.06	0.28	10.99	102.5	0.05	73.59
34	3.36	119.90	896.4	0.42	8.10	10.62	125.06	1134.6	1.14	6.50	2.13	89.01	1287.0	0.59	6.19
35	0.64	10.26	671.6	0.54	12.87	3.49	22.85	753.5	0.90	11.09	0.23	18.28	943.7	0.58	9.12
36	0.18	3.52	676.2	0.97	13.01	2.59	15.33	484.8	0.60	17.16	0.29	16.34	567.5	0.32	14.94
37	0.75	3.37	321.7	0.95	26.95	1.76	2.13	352.5	1.84	24.55	0.48	6.00	373.4	0.57	23.09
38	0.75	3.55	331.2	2.75	26.17	1.46	2.69	354.8	3.95	24.41	0.61	6.44	333.0	1.77	25.73
39	0.58	3.69	380.5	6.14	22.87	1.37	5.75	378.0	5.85	22.66	0.48	10.30	387.8	3.89	21.89

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES*

LDV [illegible]

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
MODE	52	1972	CHEV	MALI	350	53	1972	CHEV	[illegible]	350	54	1972	CHEV	CAPR	400
NO.	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	2.37	58.47	1125.4	12.[illegible]	8.22	5.[illegible]	101.92	17[illegible].4	17.05	4.57	2.40	42.65	1454.5	12.28	5.75
2	0.51	11.31	498.1	0.35	17.15	1.[illegible]	27.1[illegible]	[illegible]	1.25	15.17	1.[illegible]	8.70	477.5	0.56	17.[illegible]
3	3.00	92.58	1336.7	2.96	5.95	7.06	240.[illegible]	16[illegible]	1.41	4.37	4.38	22.91	1557.0	4.40	5.23
4	1.10	21.08	888.1	5.30	9.60	1.86	32.75	1247.[illegible]	7.11	6.80	1.64	13.07	977.2	5.90	8.75
5	0.78	10.18	719.3	7.07	12.02	2.11	23.06	[illegible]	9.88	9.15	1.72	23.52	775.8	7.07	10.81
6	0.94	6.86	295.0	0.92	28.77	2.27	10.71	[illegible]	1.38	29.45	2.62	6.11	232.8	1.05	36.97
7	1.17	53.15	840.7	15.[illegible]	9.54	4.14	155.57	12[illegible].7	10.84	5.91	3.67	109.72	1057.1	12.96	7.15
8	1.68	5.38	310.4	1.75	27.[illegible]	1.60	[illegible]	[illegible]	7.37	21.55	1.70	8.[illegible]	18[illegible]	2.72	41.22
9	0.77	12.32	336.[illegible]	8.07	14.56	1.88	2[illegible].47	[illegible]	10.63	8.75	2.66	49.[illegible]	774.1	11.70	10.32
10	1.21	6.49	327.9	2.12	25.91	2.74	11.1[illegible]	3[illegible].4	2.62	31.20	3.28	5.55	247.8	2.16	33.75
11	1.12	25.41	904.7	15.34	9.06	2.23	42.33	1245.4	13.71	6.55	2.33	73.91	754.7	11.84	8.23
12	2.53	8.43	362.2	2.72	23.14	5.[illegible]	1[illegible].5[illegible]	[illegible].7	2.71	23.60	4.55	9.31	326.4	3.37	24.97
13	0.97	20.53	910.4	14.88	9.28	2.19	5[illegible]	12[illegible]4.7	10.06	6.23	1.97	41.04	1583.2	12.06	5.27
14	1.05	7.03	256.0	1.41	32.57	2.70	[illegible]	298.1	3.56	28.50	3.92	5.[illegible]	226.1	3.05	35.8[illegible]
15	0.82	12.62	283.5	0.56	29.15	1.87	21.[illegible]	[illegible]	1.10	24.12	1.72	8.80	347.6	1.01	24.08
16	0.85	42.85	697.[illegible]	0.97	11.56	2.62	5[illegible]	[illegible]	1.21	9.97	2.55	22.91	923.8	0.77	10.23
17	1.07	22.60	939.2	12.25	9.07	3.08	86.51	13[illegible].1	12.34	6.08	2.08	53.20	1130.2	11.45	7.27
18	0.73	11.36	235.6	0.77	34.71	2.30	15.34	329.[illegible]	2.10	24.59	1.40	7.86	232.2	1.01	28.72
19	0.97	12.07	842.3	11.65	10.27	1.76	44.[illegible]	12[illegible].7	11.62	6.75	1.66	44.47	995.6	10.57	8.29
20	0.75	31.78	393.1	0.97	23.03	4.18	24.[illegible]	4[illegible]	1.1[illegible]	18.29	1.49	7.06	356.4	3.60	23.64
21	2.13	17.87	1015.8	16.72	8.42	6.61	249.77	1[illegible]	[illegible].48	5.07	4.05	151.77	1128.6	13.11	6.43
22	1.63	12.37	283.7	1.66	28.79	3.47	15.71	3[illegible].6	2.71	22.97	2.81	8.45	280.4	1.56	29.30
23	1.44	28.80	1052.6	9.18	8.05	3.01	73.70	14[illegible].8	11.21	5.82	2.14	35.95	1282.[illegible]	8.73	6.56
24	0.70	8.37	735.2	12.26	11.82	1.02	30.75	1154.[illegible]	3.94	7.35	2.16	50.51	814.4	11.60	9.85
25	1.23	9.61	282.9	1.67	29.40	1.29	10.52	5[illegible].2	1.75	1[illegible]	2.24	8.30	231.[illegible]	1.76	25.68
26	0.60	21.05	444.5	1.24	18.51	1.96	37.55	531.2	[illegible].07	14.99	1.9[illegible]	14.30	544.[illegible]	1.02	14.95
27	0.71	17.14	838.4	13.00	10.22	1.73	51.03	11[illegible].5	11.96	[illegible].97	1.48	51.[illegible]	84[illegible].7	10.72	8.59
28	1.33	11.71	288.1	1.25	28.57	2.89	13.27	250.1	2.34	2[illegible].36	2.80	7.84	254.5	1.14	3[illegible].36
29	1.25	37.08	1010.0	7.37	8.28	3.31	82.91	12[illegible].5	9.42	6.21	1.[illegible]	38.75	1158.7	7.45	7.24
30	0.88	22.00	828.4	14.35	10.25	1.85	55.5[illegible]	12[illegible]	13.0[illegible]	[illegible].93	2.6[illegible]	33.65	974.0	12.77	7.97
31	2.12	8.32	198.5	1.05	40.65	3.61	11.[illegible]	2[illegible]	2.38	25.50	2.22	6.54	186.6	4.35	43.53
32	0.72	21.86	521.3	0.80	15.91	1.77	44.08	56[illegible].0	3.19	13.30	2.32	17.90	566.8	1.89	14.74
ACT BAG	1.00	11.6[illegible]	572.3	3.96	14.95	2.05	32.53	780.[illegible]	[illegible].20	10.59	1.80	24.45	597.2	4.96	13.84
CALC BAG	0.92	12.32	547.3	6.06	15.58	1.96	33.28	737.9	[illegible].94	10.74	1.97	26.19	600.7	5.65	13.69
33	-0.02	4.04	115.5	0.04	72.72	0.36	13.00	114.3	0.04	64.40	0.25	0.33	115.2	0.07	76.21
34	1.53	87.20	1298.3	0.57	6.16	6.48	213.34	1227.3	0.47	5.61	2.97	8.31	1391.8	0.51	6.32
35	0.48	38.21	652.4	0.28	12.43	1.45	81.84	813.7	0.38	9.09	1.16	4.88	914.0	0.57	9.59
36	0.01	4.28	631.4	0.46	13.91	0.51	8.79	884.1	0.90	9.87	2.41	3.35	623.3	0.40	13.95
37	0.75	1.92	376.4	0.87	23.12	1.46	4.12	5[illegible].9	1.87	16.50	1.41	2.31	363.8	0.98	23.87
38	0.56	3.75	379.1	3.41	22.95	0.76	5.85	586.0	4.39	14.85	0.99	2.73	378.4	2.75	23.01
39	0.34	5.16	412.4	5.62	21.05	0.35	5.19	6[illegible]1.0	7.68	13.24	0.62	9.96	424.4	5.58	20.08

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

[illegible]

[illegible] RESULTS OF INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	55	1972	[illegible]	[illegible]	[illegible]	56	1972	DODGE	DART	318	57	1972	DODGE	SWIN	318
MODE NO.	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	14.80	104.44	[illegible]	0.33	[illegible]	21.17	171.74	[illegible]	3.40	[illegible]	5.56	54.38	1213.5	11.22	6.51
2	5.94	8.84	[illegible]	1.06	[illegible]	12.98	33.10	[illegible]	1.84	23.57	1.45	21.36	337.0	0.46	23.66
3	24.16	45.71	447.1	10.04	[illegible]	31.55	173.09	[illegible]	5.84	5.42	6.08	213.43	1007.6	1.65	6.51
4	14.71	30.17	517.3	[illegible]	[illegible]	13.64	45.65	742.1	3.06	10.35	3.38	78.81	711.6	3.58	10.49
5	[illegible]	18.41	427.4	[illegible]	[illegible]	8.11	32.64	[illegible]	5.66	14.89	2.12	10.44	554.7	7.85	15.34
6	[illegible]	4.52	44.5	1.45	77.41	4.05	10.61	288.5	1.71	29.74	1.62	11.77	150.2	1.61	51.07
7	4.32	128.02	346.1	4.21	14.15	10.07	116.54	636.7	5.18	9.73	3.71	30.58	807.6	13.62	10.23
8	[illegible]	3.19	112.8	4.44	71.18	3.02	8.40	231.4	2.37	35.35	1.43	7.96	156.5	5.20	51.16
9	4.50	[illegible]	405.8	5.05	15.78	4.72	24.72	494.8	8.04	18.18	2.85	15.37	545.5	11.90	15.34
10	1.75	3.41	120.1	2.64	67.75	5.59	13.86	184.0	3.43	42.56	2.30	12.89	187.9	1.56	41.19
11	11.47	138.65	393.7	3.13	13.73	9.20	88.13	843.4	7.84	10.98	3.61	31.31	726.4	13.99	11.28
12	1.45	4.15	46.0	2.49	81.85	7.04	16.02	254.5	2.43	29.37	3.91	16.78	166.1	3.47	43.33
13	12.57	134.71	442.5	4.25	12.84	10.12	40.77	719.4	8.59	9.42	3.46	22.96	745.5	15.85	11.20
14	1.55	3.46	71.4	1.70	138.83	4.53	9.31	175.3	2.80	43.23	2.29	13.89	141.9	1.32	51.91
15	3.83	5.84	98.9	2.70	74.03	7.58	24.98	206.4	0.40	31.47	1.83	30.20	225.6	1.18	31.83
16	13.71	8.94	234.2	1.54	30.42	21.46	53.27	555.1	1.18	12.56	4.26	112.54	451.0	0.16	13.84
17	13.36	115.85	502.6	5.44	12.21	14.26	137.86	705.5	5.58	9.17	4.16	41.90	785.4	13.47	10.27
18	2.63	4.29	42.1	1.05	82.84	5.34	22.81	161.7	1.34	41.38	2.17	15.11	148.5	1.45	49.56
19	11.38	87.01	483.7	5.53	13.52	10.00	94.30	730.8	5.08	9.75	3.28	35.77	706.4	11.51	11.48
20	3.68	4.74	108.0	1.74	69.84	8.10	25.38	249.4	1.53	28.14	2.24	22.45	237.6	1.88	31.70
21	11.73	133.05	406.0	3.54	13.01	13.40	205.20	713.2	7.54	8.14	4.32	55.56	883.5	15.04	8.47
22	2.61	4.04	105.8	2.27	73.71	7.30	18.12	247.8	1.47	29.64	2.59	17.40	204.1	1.57	37.04
23	12.94	54.60	689.7	8.95	10.67	16.85	104.42	973.7	5.14	7.45	3.89	64.29	953.8	6.23	8.32
24	6.84	88.38	400.4	4.58	13.82	6.17	29.04	572.8	7.82	13.91	2.92	14.44	614.7	12.26	13.71
25	1.31	4.14	114.2	2.92	71.07	4.34	14.41	188.3	1.72	39.85	1.69	9.22	185.5	1.98	43.23
26	5.20	4.65	140.7	1.16	52.92	13.89	48.05	361.4	1.51	18.45	3.18	41.73	376.4	1.24	19.63
27	8.41	65.51	448.3	8.56	15.36	8.44	55.53	633.4	8.87	11.57	3.04	22.32	667.8	14.93	12.46
28	2.87	4.94	99.1	1.59	76.56	7.01	21.82	211.3	2.00	33.13	2.49	20.89	194.7	1.59	37.71
29	12.35	[illegible]	820.8	8.18	12.32	18.75	141.47	403.2	3.42	8.18	3.55	55.43	800.8	5.86	9.82
30	5.56	118.02	437.1	3.97	13.66	6.87	41.67	672.5	7.84	11.68	3.10	17.87	703.1	14.46	11.98
31	1.31	2.91	57.4	2.05	118.05	2.55	8.53	144.5	2.56	53.03	3.23	14.07	100.9	1.44	66.63
32	6.44	5.82	152.4	1.35	48.77	14.10	49.84	375.2	1.57	17.81	3.44	47.17	293.5	1.70	23.44
ACT. AVG	5.98	37.06	297.9	3.74	23.70	7.30	38.90	432.9	3.72	17.16	2.48	25.55	456.3	6.13	17.60
CALC. AVG	5.42	34.11	287.6	4.09	24.76	7.41	37.59	440.4	4.06	16.97	2.38	21.37	446.1	6.50	18.22
33	5.94	0.42	28.8	0.02	285.17	2.52	14.21	[illegible]	0.01	87.58	0.49	14.42	75.1	0.05	89.37
34	16.21	2.82	455.1	1.02	15.35	39.44	174.45	[illegible]	0.44	7.24	5.40	152.10	884.0	0.56	7.75
35	[illegible]	3.83	312.4	1.07	24.12	28.73	17.14	1033.8	1.22	7.42	2.87	82.81	502.7	0.33	13.83
36	[illegible]	2.85	[illegible]	1.76	24.55	19.04	14.56	840.7	0.83	11.47	2.09	56.56	414.8	0.32	17.39
37	[illegible]	3.41	291.3	1.74	29.16	9.27	13.38	414.5	0.73	24.32	1.41	11.80	337.3	1.43	24.63
38	2.73	2.21	290.9	3.77	30.52	3.80	2.71	341.0	2.81	24.84	1.15	4.43	325.8	3.77	26.31
39	1.22	2.63	276.2	6.34	31.41	2.02	4.70	342.2	4.28	22.41	1.34	5.64	385.3	6.71	22.25

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

MODE NO	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	58	1972	FORD	PINT	122	59	1972	FORD	MAVE	302	100	1972	FORD	TORI	351
	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	4.71	128.51	725.0	12.25	9.42	5.79	56.86	795.1	11.60	9.24	6.22	107.56	1403.0	25.42	5.56
2	1.14	45.70	125.3	0.78	44.11	0.45	17.42	460.9	1.67	17.49	1.24	23.57	406.9	0.76	[illegible]
3	2.64	111.79	557.4	1.17	11.98	4.76	52.13	1314.5	2.92	6.29	4.90	77.07	1312.9	4.92	6.11
4	2.42	45.75	404.8	6.25	18.93	2.42	16.01	822.9	5.76	10.33	2.71	24.10	846.8	12.42	[illegible]
5	1.92	55.78	352.1	8.19	19.86	2.96	7.08	590.9	11.81	14.59	2.68	29.25	671.9	12.32	11.25
6	0.82	25.16	103.0	1.71	41.18	1.64	11.48	249.3	1.71	32.55	4.05	11.47	175.2	2.08	42.27
7	2.03	56.00	401.0	15.12	15.32	4.00	9.46	769.5	23.19	10.83	3.76	33.56	958.5	23.71	8.31
8	1.24	22.04	105.9	2.62	55.58	1.64	7.38	249.7	2.76	33.70	2.36	8.10	194.2	4.10	[illegible]
9	1.25	46.17	355.4	2.40	29.47	3.21	7.64	595.2	13.74	14.88	3.26	26.15	736.1	10.22	11.13
10	1.11	36.49	90.1	2.85	62.20	5.19	[illegible]	223.7	2.45	35.30	4.64	13.94	182.3	2.45	40.51
11	1.76	68.11	466.9	12.99	15.32	3.62	10.91	718.1	19.85	11.89	1.61	27.01	871.4	23.05	9.45
12	1.61	25.83	79.1	2.09	72.26	1.95	14.41	218.2	2.03	35.04	7.43	16.12	206.0	3.39	34.62
13	2.19	71.36	471.0	17.26	15.04	3.90	12.27	735.4	19.94	11.13	4.67	61.96	935.7	22.04	8.37
14	1.16	25.10	79.9	1.67	72.11	2.05	7.92	181.6	2.44	41.95	4.03	10.28	159.4	2.58	47.12
15	1.17	26.90	75.4	0.40	71.27	1.60	11.45	298.3	0.45	27.70	1.84	12.60	237.5	0.92	33.71
16	2.57	59.77	200.8	0.85	27.31	2.23	27.42	703.1	0.96	11.78	4.19	64.54	582.8	0.98	12.72
17	2.78	86.29	508.1	12.40	13.64	6.04	16.75	810.2	15.05	10.33	5.73	126.94	989.3	16.98	7.35
18	0.88	23.79	71.0	1.06	74.87	2.51	10.91	227.1	1.82	33.86	4.41	16.66	199.9	2.11	36.97
19	2.56	78.18	447.4	10.50	15.35	3.75	18.19	737.7	17.68	11.26	4.07	43.36	888.0	17.32	9.16
20	1.56	27.97	109.7	1.26	58.29	1.06	17.11	375.4	2.71	21.97	5.31	25.06	294.7	2.14	25.52
21	2.41	75.61	516.7	10.33	14.01	4.77	[illegible]	[illegible]	21.54	9.57	6.71	215.32	1247.1	21.54	5.52
22	1.35	24.96	81.9	1.71	71.45	1.31	11.89	244.1	2.97	32.50	6.03	16.53	208.4	2.31	35.01
23	4.24	112.42	528.3	5.06	12.38	3.64	36.12	936.3	2.79	8.74	5.82	70.57	1028.9	17.54	7.68
24	1.89	54.90	295.8	12.46	19.38	2.56	12.01	610.7	16.60	13.85	3.31	40.40	779.3	17.36	10.40
25	0.82	21.95	101.1	2.08	56.50	2.02	9.80	249.8	2.40	37.43	4.68	18.19	174.7	2.58	40.68
26	1.95	78.08	173.0	0.95	28.75	0.42	14.10	403.6	1.53	18.71	2.12	26.82	389.4	2.31	20.25
27	2.03	60.26	425.5	12.17	16.85	3.77	15.60	749.4	17.34	11.90	3.85	34.51	771.4	21.26	10.59
28	1.46	23.19	78.4	1.92	74.20	0.42	10.44	254.0	2.54	31.34	5.42	15.09	219.5	2.15	34.09
29	0.60	105.03	473.8	0.38	13.65	2.34	44.75	981.7	7.36	8.41	5.42	70.57	974.3	16.47	8.05
30	2.15	57.68	471.0	12.62	15.17	4.10	12.05	675.0	20.84	12.18	3.32	35.07	845.4	21.48	9.74
31	0.74	19.84	80.0	1.75	76.22	2.07	12.53	102.4	2.19	67.51	4.93	13.44	133.6	2.66	52.11
32	2.14	55.20	149.1	0.83	36.58	3.55	27.86	472.9	2.39	16.93	4.17	25.84	411.4	2.24	19.08
ACT LA4	1.74	51.31	307.4	5.30	22.55	2.16	7.61	476.4	5.71	17.81	2.55	31.71	555.6	8.44	14.47
CALC LA4	1.59	45.37	271.5	5.57	25.06	2.72	10.19	479.5	7.73	17.81	3.05	26.60	541.5	9.33	14.97
33	0.23	8.80	35.5	0.02	211.23	0.34	0.45	100.0	0.09	87.22	0.40	6.10	110.6	0.07	73.06
34	2.38	35.53	425.6	0.16	18.11	2.95	11.68	1237.9	0.98	7.01	5.26	34.31	1314.6	1.17	6.41
35	1.19	0.01	278.2	0.34	31.48	0.62	4.69	998.3	1.14	8.81	0.80	6.02	1050.2	0.99	8.36
36	1.25	8.25	241.7	0.67	34.32	0.51	2.80	621.3	0.79	14.11	0.72	4.46	634.6	0.67	13.78
37	1.55	45.90	180.5	0.72	24.46	0.76	2.48	380.6	0.94	22.88	0.50	2.09	436.5	0.88	20.11
38	1.24	29.04	207.9	2.69	32.50	1.31	2.97	339.2	3.38	25.50	1.19	2.30	377.4	4.75	23.07
39	1.18	53.45	248.0	3.86	26.44	1.52	4.54	390.5	5.45	22.61	1.32	6.05	419.1	8.80	20.51

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	61	1972	FORD	TORI	351	62	1972	FORD	LTD	400	63	1972	FORD	STAW	429
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	3.88	25.92	1521.2	17.04	5.64	3.24	82.54	1408.8	16.90	5.66	7.24	101.64	1497.8	22.05	5.28
2	1.09	15.50	160.0	1.24	47.25	0.31	30.54	383.5	0.70	20.52	2.42	60.29	470.0	1.11	15.50
3	3.72	30.19	1452.5	3.40	5.87	3.84	170.00	1054.2	4.18	6.66	6.86	220.01	1318.9	3.91	5.26
4	1.46	24.62	1043.4	4.80	8.17	1.89	59.01	850.5	7.58	9.35	3.91	68.07	824.0	10.05	9.41
5	2.43	12.41	727.4	11.82	11.76	3.19	28.93	654.1	16.95	12.51	2.90	32.73	789.0	10.69	10.45
6	2.39	6.78	212.7	2.32	38.43	5.09	35.16	167.8	3.00	37.11	1.92	11.46	406.2	2.75	20.63
7	3.25	80.47	891.5	12.81	8.63	3.29	59.68	829.6	22.33	9.50	5.87	153.31	870.5	14.82	7.85
8	1.44	8.60	210.9	4.31	38.76	8.19	11.35	143.6	5.54	47.36	2.55	20.59	221.2	2.37	33.92
9	2.48	9.14	758.5	12.00	11.37	9.98	12.78	555.6	18.83	14.61	3.73	39.96	653.5	13.72	12.19
10	3.38	10.01	234.2	2.50	34.05	9.87	24.64	198.1	4.66	33.10	5.10	27.59	255.6	2.50	28.16
11	4.91	92.08	896.1	14.19	8.40	2.79	40.28	802.7	24.86	10.15	5.21	112.91	957.2	15.59	7.71
12	6.57	18.65	211.1	0.94	33.98	10.19	22.99	218.6	5.34	30.92	7.63	38.94	285.4	2.57	23.93
13	2.94	18.29	984.4	19.42	8.68	2.76	37.73	843.5	26.91	9.74	5.36	81.88	1029.1	18.06	7.55
14	3.71	10.53	215.5	4.91	36.40	8.32	13.22	155.9	3.14	43.71	4.68	22.35	220.5	2.34	32.82
15	2.00	11.34	282.4	1.37	28.95	1.44	25.92	235.1	1.57	32.83	1.67	23.05	313.3	0.73	25.01
16	2.91	10.32	752.0	1.18	11.42	3.84	153.64	534.3	0.74	11.26	4.84	157.09	707.9	0.47	9.15
17	3.17	23.46	1009.7	16.53	8.40	2.68	42.92	911.3	22.76	8.99	5.88	94.28	1064.0	17.31	7.21
18	3.14	17.04	205.1	1.74	36.70	6.76	26.46	174.4	2.73	37.39	6.98	33.34	251.8	1.40	27.20
19	2.33	18.12	1022.3	17.33	8.39	2.66	39.61	812.1	21.53	10.05	4.78	74.86	918.2	14.84	8.45
20	4.90	19.28	284.0	1.34	26.91	4.26	41.66	232.7	3.30	28.48	7.11	46.16	269.0	1.94	24.38
21	4.03	59.62	1120.9	20.37	7.23	4.48	126.33	1028.8	23.05	7.15	9.76	260.80	1042.8	11.21	5.98
22	5.11	14.80	261.3	4.28	29.51	6.28	27.07	227.0	3.36	20.66	4.81	29.26	311.6	2.31	23.80
23	3.21	32.32	1265.0	12.57	6.69	1.80	71.96	1088.3	10.86	7.35	6.31	100.68	1122.4	12.56	6.82
24	2.81	24.36	802.9	15.92	10.44	1.85	16.56	607.5	23.23	13.88	3.88	48.61	773.3	14.53	10.30
25	3.11	9.55	214.3	3.35	37.11	7.54	12.60	159.4	4.16	43.69	3.52	22.86	264.9	2.40	28.45
26	2.21	19.89	765.1	2.13	11.05	1.79	58.03	438.1	2.31	16.59	2.78	33.59	515.5	1.53	15.38
27	3.28	17.80	873.1	19.13	9.74	2.42	38.22	756.7	25.16	10.77	4.55	65.52	950.0	16.67	8.31
28	4.07	14.17	224.5	2.34	34.18	6.91	34.03	225.6	4.61	29.49	6.00	31.90	257.2	1.47	27.20
29	3.18	40.07	1209.1	10.40	6.92	2.42	73.68	1056.2	9.67	7.46	5.49	75.41	1097.8	11.61	7.19
30	2.81	25.18	830.1	17.87	10.10	1.91	17.12	791.8	26.51	10.76	3.73	87.67	951.2	17.00	8.06
31	3.08	10.06	159.4	2.61	47.98	8.11	20.44	114.2	3.28	51.60	5.41	22.65	180.3	2.28	38.06
32	2.16	29.69	474.5	1.41	16.81	4.00	60.26	418.5	1.76	16.88	2.89	41.97	573.4	0.79	13.69
ACT. BAG	2.81	18.58	601.0	6.50	13.89	5.30	33.51	582.9	10.25	13.60	3.90	51.79	636.6	1.42	12.15
CALC BAG	2.47	17.08	559.0	7.70	14.95	7.80	27.18	504.0	11.07	15.53	3.88	49.78	604.6	7.77	12.77
33	0.32	0.76	111.3	0.18	78.16	0.54	17.53	102.1	0.08	67.59	0.59	17.46	113.1	0.07	62.34
34	3.21	9.10	1349.1	1.64	6.46	5.81	196.70	1180.3	0.91	5.89	7.14	208.35	1408.8	0.95	5.05
35	0.66	5.99	1034.9	1.07	8.48	3.09	99.89	631.6	0.50	11.12	3.24	91.30	796.8	0.58	9.34
36	1.05	7.51	511.1	0.59	16.87	1.84	58.24	446.8	0.35	16.31	1.73	38.90	654.1	0.60	12.31
37	0.36	2.34	431.4	0.91	20.35	0.48	2.40	421.5	1.10	20.80	0.86	6.90	495.2	1.17	17.44
38	1.02	3.24	377.8	3.86	22.99	15.32	2.11	370.2	6.64	21.03	3.95	6.84	477.8	15.46	17.71
39	1.43	6.70	428.5	6.58	20.01	17.06	4.13	415.9	10.88	18.25	1.92	27.11	506.3	5.00	15.99

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	64	1972	LINC	CONT	460	65	1972	MERC	STA	400	66	1972	OLDS	CUTL	350
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	7.11	110.62	1653.5	27.19	4.84	2.01	76.91	2271.3	15.89	3.78	3.42	47.10	1477.8	9.06	5.65
2	2.55	35.15	608.7	2.47	14.20	0.57	21.79	674.5	1.41	12.47	2.90	14.93	357.4	1.07	22.82
3	9.19	262.55	1128.1	12.18	5.14	2.01	61.36	2215.5	7.36	3.76	4.23	51.39	1288.4	2.96	6.42
4	4.20	54.11	1161.1	18.06	7.05	0.99	33.31	1346.4	8.15	6.33	1.70	14.36	995.4	4.56	8.87
5	2.39	18.67	901.5	14.56	9.46	1.40	29.72	797.4	10.70	10.46	2.12	8.81	657.1	8.68	13.10
6	2.32	12.65	220.8	1.51	35.78	0.50	9.53	311.2	1.23	27.08	2.78	9.92	170.2	1.57	45.68
7	4.39	75.29	1326.7	21.44	6.08	4.74	253.13	1173.1	7.98	5.60	6.48	238.49	725.0	4.68	7.92
8	0.91	9.46	233.3	4.26	35.35	4.15	17.77	231.2	1.73	32.60	2.70	4.58	210.3	5.12	39.27
9	2.78	18.12	765.5	17.00	8.85	2.59	81.28	887.8	7.66	8.67	2.38	9.00	682.9	10.93	12.60
10	4.93	30.58	221.0	2.54	31.17	2.28	9.71	275.3	2.12	29.80	6.39	13.53	193.8	2.20	37.72
11	4.05	62.96	1221.9	20.88	6.65	2.49	95.69	1174.1	12.73	6.56	3.11	43.79	854.8	11.69	9.51
12	7.10	39.93	198.2	2.76	31.54	5.21	22.16	305.4	2.17	24.88	6.97	10.49	203.9	2.14	36.60
13	3.82	51.17	1219.8	24.15	6.76	2.07	66.64	1215.0	13.31	6.54	2.68	28.05	949.6	13.36	8.86
14	4.25	27.32	164.2	1.63	40.47	3.46	15.36	276.5	1.41	28.48	4.83	7.78	141.3	1.79	52.57
15	1.74	40.36	245.4	3.56	26.97	0.95	23.04	467.5	0.92	17.52	2.19	10.25	222.6	0.89	36.14
16	4.46	147.68	609.4	-0.10	10.37	2.01	48.94	1104.4	1.23	7.47	2.33	28.61	565.4	0.17	14.37
17	4.34	30.65	1279.0	22.71	6.39	1.97	68.16	1310.4	13.32	6.11	2.39	20.68	982.1	12.50	8.68
18	3.92	32.95	202.7	1.38	33.25	0.86	17.53	337.2	2.10	24.15	4.09	12.76	178.7	1.37	41.92
19	4.00	56.45	1186.0	20.96	6.89	1.15	48.86	1272.9	15.31	6.80	1.73	18.70	936.7	9.52	9.14
20	4.55	54.55	278.4	1.71	23.44	1.00	30.46	477.1	2.53	16.81	5.27	15.53	227.9	1.52	32.99
21	5.26	100.71	1445.6	25.26	5.48	2.89	92.07	1527.8	16.68	5.28	5.72	168.77	985.1	11.68	7.03
22	5.17	39.76	250.7	2.55	26.93	4.05	18.21	326.5	1.65	24.12	4.52	10.93	232.9	1.82	33.56
23	6.19	104.84	1325.6	21.56	5.88	1.79	81.23	2056.9	10.86	4.05	2.73	25.98	1131.4	7.49	7.52
24	5.05	75.59	1025.8	19.53	8.13	2.08	63.78	918.2	12.70	8.66	2.06	12.71	699.9	12.61	12.22
25	3.96	21.34	187.2	2.15	38.05	3.58	15.09	289.5	1.54	27.34	3.78	9.28	195.6	2.37	39.76
26	3.42	78.32	409.5	2.71	16.93	1.77	46.26	719.8	1.85	11.08	3.40	22.94	357.7	2.10	21.94
27	3.22	42.17	1073.3	23.67	7.72	1.49	36.37	1076.0	13.95	7.80	1.65	13.16	829.2	11.79	10.39
28	5.17	52.04	225.3	1.32	27.44	3.02	20.19	340.2	1.21	23.26	4.43	11.10	198.5	1.31	38.59
29	5.91	114.32	1202.7	18.85	6.32	2.27	111.83	1744.2	8.33	4.56	2.77	27.09	996.4	8.25	8.47
30	3.82	42.52	1149.3	19.49	7.22	4.53	98.35	1660.8	12.89	7.21	2.53	25.38	835.4	13.51	10.05
31	5.85	24.25	177.7	2.08	45.67	15.75	14.95	247.9	4.97	27.62	5.08	8.93	112.8	3.48	62.05
32	4.21	113.12	425.2	[illegible]	14.40	1.83	46.03	747.4	2.56	10.75	4.77	26.42	414.2	1.54	18.95
ACT BAG	3.19	37.37	609.4	8.34	11.71	1.72	34.77	715.9	5.57	11.44	2.98	21.32	540.5	5.37	15.21
CALC BAG	2.78	38.95	678.0	8.89	11.24	1.91	33.29	711.4	5.86	11.53	2.62	20.90	518.0	5.58	15.97
33	0.83	34.19	78.0	0.06	66.07	0.11	2.57	169.4	0.23	51.08	0.37	4.99	93.7	0.04	86.40
34	8.70	407.34	1028.0	0.71	5.22	0.46	26.07	1990.3	2.35	4.37	4.24	37.85	1225.4	0.61	6.84
35	3.81	140.92	777.1	0.61	6.78	0.03	11.99	1016.3	1.15	8.57	1.02	6.52	985.7	0.83	8.88
36	1.76	32.95	706.1	0.99	11.61	-0.34	3.50	857.4	0.99	10.20	0.76	4.35	606.5	0.59	14.41
37	1.00	2.50	478.7	3.52	18.27	0.15	2.33	470.5	0.79	18.70	1.05	2.40	386.7	1.19	22.54
38	0.59	4.67	527.9	4.38	16.52	0.38	2.50	436.6	2.34	20.09	1.01	2.68	368.6	3.24	23.60
39	0.98	8.79	550.3	7.98	15.65	0.39	3.67	483.7	4.72	18.09	0.92	2.99	417.3	5.43	20.89

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

MODE NO	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	67	1972	OLDS	DELT	455	68	1972	OPEL	GT	116	69	1972	PLYM	DUST	225
	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	3 88	34 68	1862 4	21 82	4 60	11 80	128 83	652 3	20 64	9 95	4 01	129 15	1004 4	8 47	7 27
2	1 90	6 95	410 4	1 35	20 77	1 44	6 86	188 6	1 68	43 52	0 51	23 17	332 8	0 68	23 94
3	4 33	45 95	1660 9	4 33	5 08	24 59	335 84	537 8	4 44	7 76	4 32	204 30	986 6	3 31	6 72
4	1 38	18 03	1126 5	6 70	7 66	3 76	37 68	399 2	8 45	18 87	2 28	86 73	617 8	4 18	11 66
5	1 48	10 68	874 4	12 08	9 91	2 23	9 92	353 4	8 58	23 60	1 55	15 56	538 5	8 62	15 63
6	2 47	4 95	273 5	2 80	30 70	0 66	0 72	102 8	1 93	83 69	0 63	10 14	173 3	1 31	46 42
7	4 52	157 67	1121 7	16 82	6 41	3 89	56 47	418 7	8 82	16 14	3 19	131 32	662 0	7 22	10 10
8	3 25	2 68	187 6	2 15	43 92	0 71	2 12	122 2	3 35	69 48	0 79	7 16	218 6	4 21	38 21
9	1 98	7 13	881 9	17 96	9 87	1 56	3 01	383 5	13 06	22 57	1 41	24 40	524 8	10 36	15 64
10	5 42	3 45	224 6	2 49	35 91	1 77	8 65	107 6	2 51	70 00	0 57	7 81	196 7	1 79	42 10
11	2 21	26 07	1078 0	20 46	7 88	4 63	45 49	416 8	11 16	17 65	2 43	100 88	668 6	9 13	10 63
12	7 12	6 32	260 0	3 37	30 34	2 32	2 48	123 8	3 97	65 72	1 54	9 93	215 3	2 91	37 64
13	2 14	11 21	1204 3	23 89	7 22	3 98	28 53	416 1	16 30	17 63	1 88	62 17	691 0	10 76	11 17
14	4 38	7 32	191 8	1 86	40 87	0 77	4 35	90 8	1 93	88 72	0 50	8 36	183 2	1 51	44 85
15	1 55	6 86	276 1	1 81	30 42	1 25	3 36	139 1	0 87	59 84	0 40	15 23	214 7	0 53	37 00
16	1 60	7 60	661 9	1 87	13 07	4 75	45 79	295 3	0 82	23 22	1 25	87 39	480 6	0 45	14 27
17	2 40	18 77	1314 8	22 00	6 57	5 19	58 07	450 9	12 96	15 64	2 03	70 55	707 2	8 93	10 76
18	4 97	6 97	193 9	2 78	40 23	1 30	8 23	120 5	2 36	64 55	0 46	10 27	185 3	1 01	43 75
19	1 39	12 94	1174 3	16 99	7 40	3 78	30 64	443 9	13 92	17 61	1 72	71 79	657 2	7 48	11 45
20	6 40	19 41	313 5	2 68	24 36	1 32	18 11	144 5	2 18	50 11	0 57	14 21	247 7	1 44	32 65
21	5 46	158 29	1304 7	19 13	5 65	6 84	92 26	430 0	9 69	14 63	3 69	171 25	751 2	8 00	8 60
22	4 41	7 39	269 5	2 29	30 07	1 98	7 35	116 3	2 86	66 16	0 65	10 92	220 6	2 78	37 01
23	2 88	27 35	1425 4	15 94	6 01	9 00	103 20	482 1	13 01	13 60	1 60	58 85	837 1	7 43	9 50
24	1 73	11 41	942 0	19 98	9 19	1 83	8 95	378 5	12 33	22 28	1 25	23 93	525 8	10 77	15 64
25	0 72	5 38	239 3	2 63	34 19	0 77	4 75	101 2	2 88	79 90	0 70	7 95	181 5	2 19	45 25
26	[illegible]	12 40	442 9	1 79	18 87	1 90	7 52	200 5	1 45	40 65	0 74	30 26	348 0	0 75	22 30
27	1 52	14 24	979 1	19 83	8 82	3 38	27 04	368 2	14 48	21 06	1 38	39 64	634 7	11 52	12 66
28	5 71	12 56	260 3	2 79	29 76	3 36	13 37	104 0	2 03	65 41	0 49	11 93	208 1	1 95	38 85
29	2 98	38 66	1249 9	12 69	6 72	7 56	86 99	404 2	9 60	15 71	1 44	54 90	788 4	6 34	10 09
30	2 10	14 96	1064 6	20 57	8 11	2 44	12 40	440 5	13 63	18 98	1 35	35 92	646 4	10 39	12 55
31	4 00	5 33	194 3	2 55	41 22	0 57	1 44	79 8	3 93	105 78	0 93	7 87	203 4	2 21	40 58
32	2 82	9 89	482 1	1 53	17 52	2 04	5 83	211 5	1 50	39 08	0 60	33 44	357 8	1 05	21 53
ACT BAG	2 76	19 37	643 1	7 61	13 01	2 91	22 35	267 9	5 77	28 42	1 02	29 93	425 4	4 53	18 66
CALC BAG	2 42	16 15	638 5	9 09	13 22	2 24	19 48	264 5	6 44	29 36	1 05	30 54	403 9	4 76	19 50
33	0 41	1 23	99 2	0 07	86 65	1 28	20 91	75 4	0 0	142 42	0 15	7 76	78 2	0 04	97 65
34	4 38	18 24	1266 8	0 59	6 78	4 58	200 40	501 1	0 24	10 69	3 31	150 96	1024 8	1 75	6 97
35	1 90	5 36	734 0	0 46	11 86	1 18	10 22	518 [illegible]	0 77	16 48	1 21	62 62	438 8	0 29	16 40
36	0 81	5 90	732 1	0 68	11 93	0 97	7 82	333 4	0 53	25 45	0 96	42 90	325 1	0 33	22 44
37	1 06	6 25	445 7	1 26	19 34	0 68	2 46	[illegible]	1 92	36 57	0 50	5 87	276 5	0 95	30 89
38	0 98	2 57	435 3	4 54	20 06	0 54	1 40	202 6	3 51	42 99	0 52	6 79	266 5	2 39	31 84
39	0 72	2 70	474 4	8 63	18 45	0 63	2 21	[illegible]	6 02	38 98	0 40	6 80	317 4	4 45	26 95

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	70	1972	PLYM	SATE	318	71	1972	PONT	VENT	350	72	1972	PONT	GRAN	455
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	8.82	166.69	1158.2	15.71	6.13	9.30	60.07	1516.6	13.38	5.41	3.67	49.41	1451.7	14.88	5.76
2	2.64	34.17	235.9	1.28	29.78	2.15	11.90	391.0	1.04	21.31	0.97	11.10	483.5	0.42	17.61
3	10.25	333.39	1017.0	4.70	5.64	8.02	140.90	1434.4	3.31	5.28	3.72	16.37	1869.8	3.93	4.65
4	3.71	86.96	577.1	8.06	12.23	3.15	24.18	990.3	4.79	8.55	1.69	7.02	1007.8	5.29	8.67
5	3.01	21.93	511.0	14.49	15.99	2.22	8.86	746.1	10.26	11.57	1.59	3.45	745.8	11.25	11.74
6	1.56	5.32	152.4	2.70	53.56	1.30	3.78	214.7	1.44	39.48	2.84	10.61	280.0	1.11	29.04
7	5.25	93.49	657.1	14.32	8.70	4.37	50.36	952.2	15.77	8.49	3.43	25.61	889.0	21.06	9.44
8	1.40	7.27	152.8	3.41	52.61	1.15	3.68	195.0	2.15	43.41	3.24	12.15	243.4	2.21	32.54
9	3.43	27.22	621.9	14.26	13.14	2.64	5.70	691.1	13.76	12.53	2.45	9.90	681.5	16.79	12.59
10	3.96	17.84	170.2	4.94	42.10	3.88	11.31	215.6	2.89	36.12	4.73	11.75	268.7	1.78	29.37
11	5.26	106.71	762.1	13.54	9.38	3.11	13.33	916.5	17.27	9.37	3.49	22.68	972.9	21.60	8.70
12	6.33	26.09	158.0	3.46	40.52	5.28	14.86	189.2	2.04	38.71	4.41	17.75	225.8	4.74	33.16
13	4.90	70.20	782.4	17.04	9.77	3.22	12.28	915.8	17.53	9.39	4.42	22.59	958.9	23.86	8.80
14	3.82	14.45	145.8	2.30	49.13	2.70	9.54	193.7	1.62	40.85	4.35	11.69	190.7	1.41	39.82
15	3.10	43.81	168.7	1.76	35.88	3.09	18.70	204.8	0.76	36.38	2.76	21.76	320.0	0.46	24.46
16	5.93	163.61	321.8	0.28	14.85	0.51	69.50	518.2	0.96	14.11	4.02	61.05	846.1	0.49	9.30
17	6.39	129.05	765.6	13.97	8.98	3.80	23.65	979.8	15.31	8.63	5.29	40.42	1020.4	17.31	8.06
18	4.98	28.32	174.2	2.32	37.85	3.16	11.45	195.5	1.19	39.71	3.39	16.56	250.1	1.47	30.94
19	4.77	93.41	443.3	12.90	14.66	3.25	24.65	916.9	15.51	9.19	2.92	23.82	854.3	14.64	9.85
20	6.90	32.95	208.9	2.63	31.41	4.45	18.16	248.4	1.44	30.50	4.73	22.92	345.3	0.97	22.34
21	7.48	229.56	792.8	10.33	7.54	1.76	27.35	1116.1	20.41	7.62	5.29	96.19	1125.2	19.91	6.86
22	5.63	27.11	186.5	3.24	35.93	4.20	16.59	234.5	1.99	32.41	4.13	15.60	298.1	1.85	26.44
23	7.94	142.21	870.9	11.89	7.93	4.70	41.92	1201.2	9.49	6.92	7.10	47.03	1071.4	18.76	7.60
24	3.80	45.95	616.2	15.02	12.67	2.75	7.83	786.8	17.03	10.99	3.20	20.55	725.5	18.83	11.56
25	1.95	16.01	211.4	3.03	36.56	1.97	13.62	274.1	3.13	35.26	3.98	11.96	225.6	2.16	34.53
26	4.98	62.12	337.8	2.18	19.67	5.28	31.20	341.8	1.54	21.78	4.72	36.31	526.5	0.62	14.83
27	4.87	71.11	685.7	15.31	10.92	3.14	12.44	817.4	17.09	10.48	3.86	23.25	838.0	20.98	10.01
28	7.21	40.26	147.3	3.16	38.02	1.71	16.30	226.7	3.13	34.35	4.33	16.69	146.9	2.28	47.51
29	6.99	127.92	767.3	8.95	8.96	4.12	40.81	1172.8	7.45	7.40	7.04	60.67	954.8	15.85	8.28
30	4.53	58.55	637.1	14.50	11.94	2.80	8.49	869.7	18.47	9.95	3.46	33.33	837.7	18.31	9.85
31	3.77	22.33	134.5	3.04	48.90	3.71	7.78	132.8	3.10	56.61	4.91	13.37	187.4	2.62	39.63
32	6.15	80.07	268.6	1.46	21.44	6.20	36.24	319.8	1.46	22.39	6.41	45.83	562.0	1.12	13.56
ACT BAG	4.34	51.03	494.3	6.77	15.09	3.21	18.12	499.2	6.05	16.50	3.04	15.29	646.8	7.19	13.04
CALC BAG	3.73	48.39	446.3	7.32	16.62	2.49	16.49	546.2	8.95	15.30	2.80	17.50	592.0	7.90	14.12
33	0.86	21.48	46.4	0.03	107.05	0.77	15.55	99.9	-0.07	83.14	0.75	5.66	141.5	0.06	58.10
34	10.48	253.01	597.5	0.34	8.63	8.55	192.93	939.9	-0.86	6.99	5.53	51.94	1704.7	0.83	4.92
35	4.51	154.33	495.2	0.31	11.80	4.24	99.28	476.2	-0.43	13.75	2.67	24.79	862.5	0.42	9.75
36	2.73	91.40	424.4	0.30	15.39	3.02	57.33	506.1	-0.12	14.65	1.06	10.95	713.9	0.45	12.08
37	1.81	13.81	353.7	1.55	23.29	0.97	12.19	417.1	0.87	20.20	0.59	8.61	542.7	0.70	15.90
38	1.35	3.08	377.8	4.95	22.94	0.94	3.80	407.2	2.79	21.33	0.92	3.53	433.5	2.60	20.08
39	1.96	20.23	423.8	7.11	19.22	1.21	5.35	418.1	14.33	19.28	0.96	4.68	487.8	4.95	17.82

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

LOS ANGELES

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	73	1972	TOYO	CORO	97	74	1972	VOLK	BEET	97	75	1972	VOLK	BEET	97
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	8.98	82.57	594.1	11.46	11.80	9.78	150.55	652.0	11.04	9.55	15.39	111.66	632.2	7.44	10.36
2	9.52	21.57	189.9	1.08	34.95	1.98	27.90	195.9	1.41	36.08	4.49	21.64	199.1	0.89	35.88
3	10.44	140.64	698.4	2.95	9.32	4.28	165.61	515.2	1.98	10.84	17.37	105.32	695.1	2.10	9.69
4	4.65	38.17	466.2	5.42	16.41	2.75	71.46	292.3	4.83	21.47	4.54	55.21	496.1	5.00	14.86
5	2.85	16.72	392.1	7.20	20.76	2.21	17.89	370.8	7.10	21.86	2.64	32.70	381.1	5.70	20.13
6	1.25	4.45	112.6	1.80	71.86	0.74	10.27	97.1	2.77	76.82	1.69	13.34	98.5	2.01	71.09
7	3.49	65.87	431.6	8.29	16.25	3.59	46.56	364.9	3.32	19.66	5.20	51.06	430.7	8.50	16.82
8	1.31	6.93	98.6	2.72	78.13	1.43	14.99	91.5	5.69	74.21	2.18	14.95	98.0	2.25	69.13
9	2.65	15.39	395.2	9.85	20.75	1.84	24.82	319.4	1.88	24.37	4.13	32.98	398.5	8.94	19.15
10	2.49	15.64	130.7	2.05	54.38	1.57	13.92	128.7	3.07	57.05	3.15	23.92	110.6	1.15	56.10
11	5.47	66.40	444.3	8.28	15.68	1.01	71.61	401.0	6.71	17.18	5.96	66.39	433.9	7.83	15.93
12	3.17	16.01	149.7	2.70	48.00	2.22	19.12	107.3	2.18	61.46	3.84	25.60	125.4	1.75	49.90
13	7.85	74.65	436.3	8.44	15.34	3.14	75.63	422.0	8.37	16.11	7.49	74.63	433.3	7.82	15.45
14	2.58	14.69	68.6	1.52	88.88	1.61	15.36	120.1	2.59	59.43	2.56	23.24	86.9	1.22	67.47
15	2.41	14.18	127.2	0.47	56.49	1.84	30.11	155.4	0.93	42.55	1.93	6.73	130.9	1.19	60.14
16	5.61	61.02	243.3	0.72	24.86	4.08	113.43	288.3	0.49	18.21	6.84	76.80	290.7	0.82	20.49
17	8.36	73.31	475.6	6.60	14.38	6.28	94.55	424.4	6.74	14.97	9.84	78.50	474.4	7.48	14.11
18	2.06	7.71	111.6	1.08	68.13	0.99	13.06	152.7	1.55	50.32	2.82	10.82	110.7	1.51	64.94
19	7.16	62.90	475.3	7.52	14.87	4.38	63.07	401.2	7.59	17.26	7.97	58.18	474.2	7.51	15.02
20	3.14	16.76	141.6	1.75	49.88	1.05	14.41	153.6	2.73	49.14	4.10	26.66	134.0	1.46	46.99
21	8.18	67.55	431.7	9.43	15.74	6.15	88.18	402.4	7.92	15.84	10.02	85.89	494.3	9.05	13.43
22	3.35	27.05	127.5	0.79	49.13	1.21	21.58	125.4	1.20	54.40	4.81	37.01	113.2	2.11	47.56
23	9.11	108.55	575.1	6.47	11.46	6.82	149.21	485.4	1.84	11.97	10.93	112.50	527.0	7.47	12.02
24	3.45	24.32	399.8	9.00	19.77	2.06	41.13	389.8	7.62	19.26	3.69	50.27	391.8	7.11	18.40
25	1.81	20.62	96.1	0.62	66.12	0.72	12.01	104.7	2.41	70.50	1.54	25.99	116.9	1.66	54.57
26	4.40	33.36	265.5	0.78	26.75	1.54	33.53	199.3	2.32	34.56	2.84	18.90	259.4	1.98	29.78
27	5.66	43.97	416.2	9.43	17.64	3.56	44.09	402.3	11.14	18.38	6.32	59.56	405.0	8.29	17.11
28	4.09	27.46	105.0	1.15	55.08	1.17	23.21	117.3	1.89	56.34	3.65	29.66	111.3	1.73	52.36
29	9.14	99.25	507.0	6.12	12.83	3.76	112.12	428.2	6.16	14.40	10.45	111.83	534.2	6.11	11.94
30	4.45	45.12	460.6	7.79	16.27	2.70	52.11	426.0	7.40	17.19	4.22	51.97	412.5	7.57	17.49
31	1.83	8.22	82.2	2.06	87.93	0.67	11.90	85.3	2.48	83.62	2.79	21.06	114.5	1.75	56.75
32	4.31	29.58	201.6	1.23	33.91	1.93	65.59	286.0	1.93	22.46	4.13	19.63	226.8	1.92	32.79
ACT BAG	4.15	36.84	267.8	4.12	26.19	2.15	34.18	268.1	4.03	27.01	4.77	39.87	258.7	3.70	26.38
CALC BAG	3.30	28.06	281.9	4.60	26.38	1.96	31.18	254.7	4.35	28.64	3.69	30.90	276.3	4.33	26.37
33	0.55	10.40	36.3	0.03	163.07	0.53	10.59	41.3	0.03	148.81	1.33	6.55	37.8	0.01	169.53
34	6.49	114.60	583.9	0.45	11.31	5.07	118.46	553.2	0.40	11.75	16.04	43.81	585.3	0.20	12.59
35	2.74	30.23	625.6	1.48	13.02	2.11	51.33	309.5	0.25	22.42	3.13	23.36	554.3	1.18	14.77
36	2.13	19.25	341.8	0.88	23.43	1.75	32.79	260.7	0.44	27.93	1.99	6.99	311.8	0.75	26.97
37	0.84	6.25	269.5	1.38	31.47	1.03	14.72	164.8	0.80	46.12	1.30	7.64	229.4	1.67	36.15
38	1.25	5.82	213.0	2.76	39.26	0.81	4.30	179.3	2.69	47.05	1.08	3.50	204.2	3.27	41.65
39	1.67	11.36	240.1	5.39	33.72	0.91	5.58	230.1	4.92	36.72	1.17	7.64	239.9	4.66	34.72

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	1	1974	BUIC	LIMI	455	2	1974	CHEV	MONT	400	3	1974	CHEV	CAME	350
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	8.09	116.96	1905.3	4.04	4.20	6.23	44.44	2053.9	5.32	4.14	5.46	106.87	1378.8	3.58	5.71
2	3.44	26.38	706.2	0.45	11.70	1.08	22.51	6[illegible]6.3	0.17	12.41	5.00	36.89	626.1	0.47	12.69
3	8.88	103.04	2208.4	1.20	3.69	5.94	64.02	2159.8	1.14	3.89	8.75	132.31	1482.7	1.24	5.17
4	4.36	55.65	1035.4	1.82	7.61	2.54	25.12	1301.5	2.08	6.58	3.43	42.10	939.6	1.56	8.73
5	3.17	54.36	1057.9	3.01	7.70	2.01	28.62	988.6	2.50	8.53	2.54	36.08	729.5	2.57	11.17
6	1.74	11.54	320.1	0.40	25.82	1.69	7.63	344.4	0.23	24.54	1.72	11.15	313.3	0.47	26.40
7	9.76	454.48	1077.6	1.28	4.87	7.78	381.15	1149.4	1.17	5.01	5.57	255.78	756.1	1.63	7.55
8	2.41	10.47	252.3	0.91	32.12	3.17	8.53	280.6	0.52	28.45	2.60	10.61	381.7	0.93	21.83
9	3.11	103.00	891.4	2.42	8.35	4.43	176.46	784.5	1.68	8.25	3.13	76.68	706.6	2.99	10.60
10	1.80	11.48	295.1	0.46	27.84	2.64	9.45	332.8	0.31	26.41	2.60	11.64	383.4	0.95	21.65
11	4.45	204.56	1223.2	2.32	5.69	6.15	278.30	934.1	1.84	6.38	4.78	178.05	772.2	2.57	8.32
12	1.93	14.58	413.6	0.50	20.05	4.28	10.89	309.9	0.32	26.06	5.43	14.78	316.7	0.63	24.85
13	3.99	181.54	1336.8	3.08	5.43	5.70	263.12	1207.7	2.24	5.41	5.12	160.75	876.6	2.89	7.75
14	1.64	9.26	303.3	0.49	27.48	1.92	7.97	257.6	0.81	32.13	3.19	13.23	294.4	0.44	27.28
15	2.02	17.34	457.0	0.18	18.09	0.71	18.15	397.6	0.19	20.72	3.29	30.13	370.4	0.39	20.73
16	4.75	41.78	1111.4	0.36	7.45	1.63	39.39	914.1	0.29	9.05	7.14	60.13	804.2	1.03	9.63
17	4.55	176.99	1570.7	3.00	4.76	3.55	106.91	1405.1	3.74	5.60	3.66	86.98	998.1	3.89	7.74
18	1.36	13.19	395.3	0.40	21.12	1.77	11.26	285.1	0.08	28.78	2.50	18.45	348.9	0.54	23.01
19	4.20	156.05	1405.5	2.39	5.33	3.05	102.88	1254.1	2.85	6.23	4.45	53.55	847.8	2.67	9.38
20	1.50	1[illegible].99	526.7	0.39	15.77	1.81	16.46	389.9	0.20	21.05	3.14	25.54	428.6	0.66	18.54
21	10.96	544.45	1291.0	1.68	4.07	31.47	497.94	1377.0	1.85	3.93	7.77	369.54	927.8	1.73	5.79
22	1.45	17.74	452.1	0.69	18.32	3.21	15.42	339.3	0.28	23.75	3.23	20.40	381.2	0.62	20.96
23	6.69	123.87	1850.3	3.93	4.30	4.05	63.07	1680.5	3.73	4.95	5.11	94.50	1169.7	2.71	6.65
24	2.67	110.79	1068.1	1.74	7.10	5.14	317.02	879.9	1.08	6.37	3.79	122.68	731.2	2.49	9.48
25	1.68	12.48	267.3	0.40	30.37	3.47	10.79	257.1	0.25	31.14	2.35	13.97	320.0	0.45	25.41
26	2.38	39.91	723.5	0.23	11.18	1.19	37.31	671.2	0.05	12.10	5.48	57.32	633.1	0.64	11.98
27	3.09	90.30	1119.6	2.83	6.98	3.46	133.42	1101.5	2.71	6.71	3.79	117.42	761.4	2.68	9.27
28	2.77	17.41	353.5	0.27	22.78	2.22	15.05	327.0	0.28	24.82	2.25	23.77	351.3	0.74	22.43
29	5.88	74.42	1403.0	2.68	5.77	2.70	60.53	1546.5	2.76	5.38	4.11	115.20	1109.7	1.57	6.81
30	3.85	180.18	1018.7	1.78	6.75	7.84	416.25	915.9	1.01	5.56	5.09	233.17	696.9	1.49	8.22
31	2.28	13.22	290.3	0.19	27.88	3.43	11.99	244.6	0.20	32.36	2.22	22.14	249.4	0.35	30.47
32	2.47	41.44	735.1	0.10	10.98	1.76	43.11	669.1	0.05	11.96	5.34	74.24	673.1	0.67	11.00
ACT BAG	2.36	67.69	759.5	2.22	10.16	3.59	91.10	739.4	1.71	10.04	2.12	28.69	590.5	1.55	13.82
CALC BAG	2.69	68.86	727.8	1.58	10.51	3.34	84.43	705.6	1.30	10.46	2.68	63.18	595.2	1.47	12.63
33	0.49	1.05	167.0	0.12	52.15	0.61	1.83	134.6	0.13	63.66	0.62	6.25	121.5	0.10	66.57
34	5.63	13.12	1976.7	1.43	4.40	6.87	20.37	1602.2	1.24	5.36	5.07	45.66	1464.9	0.86	5.72
35	2.64	6.30	1022.5	0.68	8.53	1.91	15.65	928.6	0.54	9.25	1.19	24.98	951.6	0.57	8.92
36	2.39	5.06	734.7	0.74	11.83	1.39	11.74	619.1	0.38	13.83	1.19	20.96	611.7	0.41	13.69
37	1.43	3.05	459.6	0.51	18.93	0.83	12.23	534.1	0.30	15.97	0.84	17.01	498.0	0.32	16.83
38	0.94	3.40	471.5	0.81	18.50	0.45	5.37	514.8	0.69	16.92	0.56	10.80	485.2	0.84	17.61
39	0.98	6.96	514.7	2.60	16.79	0.31	6.37	571.6	2.01	15.23	0.59	16.73	515.1	1.87	16.34

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	4	1974	DODG	DART	225	5	1974	FORD	TORI	302	6	1974	FORD	CUST	351
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	8 35	143 91	926 9	4 77	7 52	1 86	1 20	1636 2	10 40	5 40	4 83	67 26	1465 2	2 53	5 60
2	2 40	60 94	260 1	1 20	24 42	1 36	0 73	731 2	1 32	11 87	1 81	12 34	644 4	0 58	13 26
3	6 89	227 72	844 0	3 16	7 25	3 46	2 40	1705 1	5 30	5 16	1 83	23 81	1754 1	2 29	4 94
4	3 45	69 01	595 4	2 41	12 42	1 88	1 28	1019 4	3 84	8 39	3 04	30 40	1149 8	1 57	7 35
5	2 61	36 54	485 6	5 07	16 10	1 62	0 53	795 8	4 86	11 07	1 99	15 38	834 9	2 22	10 76
6	1 18	19 30	158 9	0 92	45 99	0 60	0 60	394 9	0 79	22 31	0 79	8 17	318 4	0 57	26 60
7	5 92	132 82	717 8	6 07	9 39	3 57	9 73	880 8	4 33	10 00	4 04	159 96	960 4	2 87	7 25
8	1 12	14 02	123 8	0 78	59 40	0 75	0 47	318 5	1 41	27 60	0 94	8 91	232 7	0 33	35 54
9	2 55	53 97	537 8	4 07	14 07	1 61	0 76	774 3	4 26	11 37	2 24	39 97	812 5	2 47	10 06
10	2 18	22 67	159 3	0 84	43 96	0 54	0 51	371 4	1 18	23 55	0 90	10 45	349 4	0 23	24 08
11	3 62	117 84	627 2	4 98	10 77	2 19	2 42	1018 1	8 49	8 63	3 63	128 97	947 1	2 37	7 64
12	3 41	30 74	163 7	1 02	39 83	0 73	0 74	415 9	1 82	19 32	1 03	17 06	404 8	0 43	20 41
13	3 50	108 62	640 9	5 06	10 79	2 21	1 81	1087 3	9 78	8 09	3 58	103 00	1060 0	3 03	7 20
14	2 05	16 51	123 8	1 03	56 79	0 41	0 52	313 2	0 91	28 15	0 71	11 82	271 5	0 23	30 36
15	1 68	33 22	172 9	0 71	38 52	0 79	0 90	509 9	1 15	17 27	0 89	15 61	430 6	0 54	19 38
16	4 20	136 42	383 9	1 03	14 51	2 38	2 55	1292 4	2 85	6 81	3 98	50 51	1065 5	1 01	7 67
17	3 93	110 32	689 0	4 21	10 15	2 29	1 35	1180 4	2 96	7 46	3 78	88 06	1147 3	2 91	6 84
18	1 81	28 52	127 1	0 84	49 95	0 60	0 89	435 7	0 75	20 22	0 83	14 43	336 6	0 50	24 53
19	3 62	133 85	638 0	3 05	10 32	2 65	2 31	1110 9	7 67	7 90	3 79	141 44	1053 6	1 84	6 89
20	2 62	43 98	171 9	0 83	35 60	0 84	1 23	511 2	1 54	15 42	1 15	20 86	496 1	0 48	16 67
21	8 54	171 82	827 8	8 34	7 89	3 63	8 27	1203 8	5 17	7 23	4 91	204 80	1211 8	3 64	5 73
22	2 58	31 17	181 5	0 85	37 19	0 64	0 96	417 7	1 20	19 67	1 14	16 61	387 0	0 44	21 30
23	4 24	84 55	736 2	3 97	10 06	2 25	1 93	1410 0	6 03	6 25	3 63	38 40	1400 3	2 57	6 03
24	3 05	65 80	544 7	5 20	13 49	1 89	1 17	909 6	7 21	9 67	2 42	44 62	870 7	3 01	9 36
25	1 88	18 22	139 7	0 72	56 92	0 41	0 72	357 9	1 62	24 63	0 73	12 97	294 8	0 28	27 95
26	2 80	65 40	298 2	0 91	21 66	1 33	1 60	830 5	1 99	10 60	1 65	24 66	718 5	0 63	11 64
27	3 11	69 45	611 0	5 37	12 16	1 74	1 09	973 5	8 04	9 05	2 42	39 21	985 8	2 95	8 41
28	2 48	35 40	145 8	1 15	42 41	0 58	0 85	419 9	1 01	20 42	1 16	18 09	356 9	0 33	22 81
29	3 72	69 47	738 2	3 61	10 35	2 14	2 06	1257 9	5 06	7 00	3 75	42 19	1342 0	2 00	6 25
30	3 60	120 32	571 6	3 91	11 50	2 18	1 89	910 5	7 89	9 34	3 05	91 05	870 2	2 36	8 68
31	2 66	18 05	109 7	0 86	80 57	0 51	0 72	293 3	0 84	29 98	0 82	13 72	294 6	0 30	27 84
32	2 73	70 86	282 8	1 23	22 04	1 38	1 56	657 8	1 79	10 26	1 54	27 05	766 5	0 80	10 91
ACT BAG	2 50	42 75	378 2	3 03	19 58	1 26	13 10	693 1	4 69	12 37	1 77	36 88	677 1	2 44	11 98
CALC BAG	2 55	47 91	382 7	3 10	19 04	1 29	2 53	691 5	3 81	12 69	1 84	36 03	629 7	1 60	12 82
33	0 53	19 15	53 4	0 06	104 22	0 44	0 77	193 0	0 47	45 37	0 55	1 92	165 4	0 28	52 17
34	6 34	221 08	640 7	0 39	8 80	4 34	9 28	2113 5	4 79	4 03	6 10	25 75	1949 8	3 18	4 42
35	3 17	101 57	455 6	0 31	14 19	1 96	6 08	1208 7	2 20	7 25	2 51	16 04	1009 4	1 03	8 51
36	2 19	62 13	309 8	0 34	21 42	1 41	4 05	799 0	1 56	11 10	1 78	9 22	679 9	0 91	12 68
37	1 55	20 11	243 6	2 40	31 69	0 65	2 51	514 3	1 93	17 06	0 94	3 39	430 7	1 27	20 22
38	1 07	1 85	282 5	2 17	30 75	0 64	3 52	511 5	1 54	16 37	0 95	3 53	404 2	3 37	21 50
39	1 22	3 58	345 1	3 92	25 03	0 78	3 42	496 5	3 36	17 60	1 04	9 49	413 5	0 83	20 56

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	7	1974	OLDS	CUTL	350	8	1974	PLYM	SATT	318	9	1974	PONT	CATA	400
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	5.38	35.42	1522.5	5.43	5.56	10.87	60.91	1625.1	6.85	5.06	5.64	38.60	1415.0	3.69	5.94
2	2.12	12.36	581.6	0.90	14.60	4.88	32.33	471.3	0.71	16.51	1.07	18.66	616.8	0.47	13.66
3	4.25	28.30	1467.6	3.39	5.82	11.44	87.85	1462.7	2.40	5.42	4.54	23.82	1852.5	1.03	4.66
4	3.58	24.26	991.6	3.00	8.53	6.38	52.26	1009.9	3.22	7.98	3.05	30.29	1019.7	1.44	8.24
5	2.25	14.37	748.2	3.27	11.41	5.50	14.18	734.9	4.42	11.46	2.18	14.29	778.5	2.26	10.99
6	1.67	4.30	290.1	1.33	29.37	2.38	11.93	250.6	0.78	32.05	1.14	13.71	282.3	0.26	28.86
7	4.38	70.68	958.5	6.99	8.19	5.95	34.67	984.3	9.23	8.39	4.30	48.53	1079.5	5.33	7.59
8	1.95	4.60	247.2	0.79	34.06	2.30	7.63	273.3	1.02	36.59	4.90	12.43	271.0	0.52	29.00
9	2.52	11.78	786.7	3.37	10.91	5.01	16.87	761.0	5.37	11.05	2.10	13.96	832.2	3.35	10.31
10	1.70	5.42	289.7	0.53	29.22	2.45	14.86	281.5	0.90	28.39	2.87	12.45	262.2	0.50	30.52
11	2.63	21.33	945.0	7.66	8.99	5.73	28.02	920.0	8.40	9.04	3.12	25.37	1017.2	5.04	8.32
12	2.52	6.60	305.3	0.58	27.42	3.52	16.87	397.1	1.45	20.42	4.63	17.01	351.0	0.58	22.62
13	2.83	15.67	1062.3	7.48	8.10	6.44	30.44	1027.3	8.59	8.10	3.20	27.48	1072.4	5.38	7.88
14	1.33	5.00	249.3	0.44	33.95	2.07	12.54	274.1	1.11	35.46	2.68	12.63	255.6	0.30	31.25
15	1.09	13.14	377.7	0.39	22.09	4.18	32.99	314.1	0.70	23.41	0.80	16.41	428.8	0.31	19.41
16	3.92	26.08	951.2	1.04	8.83	7.26	76.65	790.1	1.03	9.51	2.14	45.92	945.5	0.82	8.66
17	3.12	20.24	1149.3	6.03	7.45	7.91	47.66	1130.0	6.77	7.22	3.86	31.13	1197.0	4.68	7.05
18	1.21	11.26	317.2	0.94	26.20	2.81	19.98	238.9	0.96	31.79	1.68	22.70	308.4	0.29	25.40
19	2.88	18.68	1055.4	5.50	8.11	7.03	45.29	1048.2	6.79	7.77	3.25	30.01	1072.8	4.02	7.85
20	1.68	12.96	402.6	0.92	20.72	3.51	32.98	358.6	0.82	21.05	1.48	24.33	489.4	0.41	16.67
21	5.43	107.55	1222.1	9.42	6.30	8.99	66.21	1216.1	11.55	6.58	6.11	127.74	1270.3	5.65	5.96
22	1.72	10.61	302.3	0.54	27.35	2.91	23.65	330.0	1.36	24.22	3.40	17.76	350.5	0.45	22.80
23	4.53	23.70	1248.4	5.49	6.83	9.73	75.30	1213.0	3.94	6.52	4.90	57.37	1286.3	3.06	6.38
24	2.42	13.64	864.7	5.85	9.93	5.38	31.42	788.2	5.37	10.39	2.68	28.42	893.1	3.85	9.38
25	1.79	8.16	285.3	0.62	31.27	2.57	17.66	260.6	0.93	29.83	3.01	21.76	341.9	0.41	23.02
26	2.49	26.10	657.0	0.78	12.57	6.97	66.37	531.4	0.51	13.49	2.01	44.15	715.6	0.58	11.22
27	2.49	16.40	960.5	5.94	8.93	6.00	36.16	940.5	6.61	8.73	3.11	40.64	966.2	3.73	8.54
28	1.90	11.99	317.2	0.58	25.94	3.13	30.81	291.1	1.09	25.18	2.71	25.41	341.7	0.34	22.74
29	4.84	33.21	1115.1	4.90	7.50	9.76	78.19	1111.1	3.69	7.02	5.24	78.59	1260.7	1.90	6.34
30	3.62	28.17	898.1	7.70	9.30	6.87	45.70	904.0	5.45	8.90	3.32	40.19	831.3	4.17	9.81
31	1.98	8.06	227.7	0.80	35.98	2.95	20.55	245.5	1.12	30.94	3.19	18.48	243.9	0.30	31.36
32	2.76	28.55	622.9	0.88	13.12	6.82	85.18	514.1	0.74	12.69	2.09	54.61	662.4	0.67	11.76
ACT BAG	2.06	9.81	618.3	3.91	13.97	3.09	21.93	600.8	4.36	13.76	2.09	17.95	631.6	2.61	13.32
CALC BAG	2.11	15.45	594.6	3.36	14.19	4.23	22.72	571.9	3.97	14.22	2.28	22.00	668.6	2.05	12.49
33	0.37	11.[illegible]	140.1	1.86	55.61	0.54	4.01	125.1	0.10	66.69	0.19	1.18	141.5	0.13	61.67
34	4.17	13.23	1647.3	2.23	5.28	5.86	67.48	1513.8	1.34	5.42	4.56	11.31	1684.1	2.79	5.17
35	1.55	7.81	860.5	0.87	10.11	3.34	55.12	765.7	0.67	10.27	2.17	5.78	842.0	1.36	10.34
36	1.11	5.21	564.7	0.58	15.40	2.27	24.31	563.7	0.57	14.57	0.98	4.29	637.8	0.97	13.70
37	1.17	4.79	369.9	1.38	23.29	3.20	14.42	330.3	2.92	24.44	0.91	4.84	570.5	0.92	15.28
38	1.39	2.45	352.9	2.30	24.58	2.53	5.34	365.0	2.77	23.27	0.96	13.27	496.6	1.26	17.05
39	1.27	2.85	423.9	2.45	20.52	2.89	4.13	402.5	4.34	21.23	0.79	8.20	535.6	1.70	16.11

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
MODE	10	1974	VOLK	DEET	97	11	1973	AMER	HORN	258	12	1973	BUIC	CNTY	350
NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	12.96	112.91	548.9	6.91	11.57	4.96	88.79	1112.8	7.02	7.00	4.33	21.52	1363.9	6.51	6.29
2	1.97	20.87	185.9	0.79	39.46	2.00	55.87	326.5	0.66	21.10	0.59	9.70	485.0	0.28	17.68
3	5.70	164.15	527.8	2.34	11.04	8.64	393.49	1087.7	2.80	5.12	3.58	43.04	1336.8	1.22	6.27
4	4.25	43.57	395.0	3.50	18.61	3.14	74.23	699.7	1.59	10.74	2.53	18.61	884.1	3.34	9.63
5	2.29	6.78	384.3	5.96	22.06	1.04	9.80	637.1	5.41	13.53	2.24	11.02	755.7	4.12	11.38
6	0.86	5.45	165.5	1.11	50.21	1.44	16.06	256.7	0.94	30.98	0.58	8.58	294.6	0.67	28.64
7	2.47	43.66	326.5	2.99	22.03	3.96	160.33	698.1	4.28	9.22	2.17	56.98	882.3	5.86	9.07
8	1.01	37.11	102.5	0.83	54.12	1.01	11.34	143.8	1.24	57.34	1.64	9.53	270.8	1.10	30.50
9	2.34	27.31	328.5	3.69	23.43	1.38	11.43	497.9	5.85	17.06	1.34	14.49	755.9	4.00	11.34
10	1.58	13.33	112.8	0.85	63.98	3.20	27.84	156.9	1.28	42.11	0.67	8.78	274.6	0.66	30.55
11	4.42	49.08	372.1	5.59	19.16	2.21	45.59	643.5	7.06	12.29	1.24	29.13	975.3	6.16	8.66
12	2.99	16.23	103.6	0.65	64.06	6.29	32.65	172.9	1.16	36.36	1.52	10.70	266.9	0.86	30.76
13	5.41	76.84	370.1	4.01	17.47	1.61	22.35	759.5	8.72	11.10	1.40	27.58	1056.9	6.69	8.03
14	1.09	9.83	134.2	0.90	57.98	2.70	18.73	178.4	1.30	41.02	0.93	10.34	333.5	1.27	25.17
15	1.66	26.52	118.5	0.43	53.63	1.56	39.25	198.7	0.43	33.45	0.39	11.26	362.5	0.18	23.27
16	2.49	85.53	258.0	2.34	22.17	4.47	247.84	390.7	0.21	11.17	-0.87	38.69	825.9	0.39	10.04
17	5.66	85.64	392.6	3.58	16.28	2.15	33.27	835.7	8.65	9.91	2.26	37.51	1151.8	7.39	7.29
18	0.99	12.54	107.0	1.00	68.34	2.38	38.93	166.3	0.67	37.76	0.48	13.55	310.2	0.65	26.66
19	4.59	72.40	427.3	4.48	15.97	2.34	43.53	637.6	7.53	12.44	2.53	56.49	1089.2	7.06	7.48
20	1.36	19.71	132.6	0.92	52.88	2.66	70.24	221.9	0.92	26.05	0.66	18.76	466.0	0.89	17.84
21	8.60	85.30	381.5	2.99	16.35	5.04	205.11	753.2	6.19	8.13	4.81	197.43	1110.9	5.81	6.18
22	1.79	36.82	117.1	0.63	49.13	3.45	44.71	183.0	1.13	33.59	0.45	18.68	386.3	1.26	21.28
23	4.62	76.88	457.3	4.61	14.97	2.84	56.36	933.3	6.35	8.61	4.06	52.35	1277.5	7.32	6.46
24	2.87	32.08	371.7	5.01	20.58	1.00	9.10	580.1	6.79	15.37	1.69	35.59	737.5	5.41	11.11
25	0.99	11.50	101.4	0.83	72.40	1.94	21.36	189.4	1.93	38.74	0.58	10.15	320.7	1.06	26.22
26	4.78	93.31	203.9	0.72	24.27	3.20	82.52	370.3	0.28	18.96	0.65	46.26	619.9	0.50	12.78
27	2.95	48.69	391.0	5.93	18.61	1.48	20.04	693.0	8.67	12.17	1.71	41.10	1006.3	7.21	8.25
28	1.82	27.47	102.4	0.96	58.65	3.32	54.89	187.9	1.02	33.53	0.19	18.97	334.0	0.90	24.35
29	4.78	78.38	489.0	3.41	14.15	2.88	75.09	892.9	5.86	8.70	3.70	60.42	1109.3	5.63	7.30
30	3.49	53.52	381.4	4.48	18.62	1.36	14.78	671.9	8.44	12.63	2.27	81.18	858.4	5.28	8.94
31	1.29	9.96	102.4	0.68	72.65	6.59	11.61	144.9	1.82	48.22	0.32	12.61	262.0	1.05	31.38
32	3.29	53.71	211.7	0.60	28.96	4.16	88.65	310.4	0.60	19.17	0.67	42.28	582.3	1.34	13.64
ACT BAG	2.07	33.79	238.9	3.33	29.73	2.01	48.48	411.7	1.33	17.96	1.43	24.34	601.7	1.91	13.77
CALC BAG	2.30	32.22	251.3	2.70	28.71	2.08	43.55	412.0	3.49	18.22	1.40	23.82	610.2	3.11	13.61
33	0.40	11.11	43.1	0.01	143.60	0.67	31.67	53.7	0.02	84.02	0.43	1.53	125.2	0.08	68.81
34	5.05	133.37	517.0	0.02	11.95	8.34	408.09	656.3	0.29	6.70	4.08	26.57	1515.5	0.72	5.65
35	2.86	41.76	460.3	0.66	16.59	4.11	226.58	426.8	0.10	11.15	0.90	10.75	948.4	0.56	9.17
36	1.64	19.93	306.9	0.47	25.85	2.66	145.40	278.6	0.13	17.22	1.04	8.23	605.5	0.39	14.28
37	1.02	49.25	223.2	1.92	29.21	1.27	52.22	296.5	0.36	23.20	1.18	3.85	418.3	0.52	20.73
38	0.78	1.63	198.2	2.30	43.67	1.12	13.90	285.6	1.72	28.54	1.11	7.78	395.1	1.37	21.60
39	0.94	3.74	205.6	3.09	41.39	0.54	5.06	335.4	3.43	25.72	0.94	7.08	482.2	3.67	17.88

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

MODE NO	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	13	1973	BUIC	ELEC	455	14	1973	CADI	DE V	472	15	1973	CAPR	CAPR	122
	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	8.54	102.08	1819.1	2.52	4.42	3.99	44.35	1813.9	8.78	4.66	18.97	250.75	822.3	5.31	6.95
2	1.54	30.14	614.8	0.11	13.31	0.40	22.47	675.0	1.08	12.47	1.00	21.26	256.0	0.96	30.34
3	6.18	109.11	1755.3	0.49	4.56	2.12	93.26	1895.4	4.23	4.33	3.35	180.89	858.8	1.04	7.49
4	3.49	34.79	1233.6	1.25	6.83	2.49	17.17	1179.1	5.00	7.63	0.89	11.12	639.9	2.91	13.44
5	2.44	7.09	845.5	1.61	10.27	1.98	13.81	941.6	4.58	9.15	1.72	40.75	509.4	4.32	15.32
6	1.34	8.74	316.4	0.25	28.54	0.91	8.17	395.7	0.66	22.11	0.84	14.88	176.2	1.46	43.88
7	3.94	94.35	1319.5	1.93	6.00	3.34	103.06	1040.4	5.56	7.32	19.80	238.76	547.8	2.01	7.77
8	1.19	4.61	294.8	0.81	29.02	1.55	5.76	310.1	1.54	25.75	2.02	8.53	181.0	1.91	44.36
9	2.02	22.34	1014.5	1.78	8.40	1.92	52.02	868.4	4.11	9.28	3.37	198.61	450.5	2.47	11.48
10	1.40	9.95	343.2	0.27	24.43	1.94	9.94	297.3	1.01	27.81	1.07	19.13	147.5	2.36	49.05
11	2.75	48.75	1171.2	2.33	7.03	2.73	87.42	1205.7	5.16	6.56	3.16	95.68	567.6	4.43	12.19
12	1.86	10.89	427.3	0.51	19.71	2.96	13.34	398.5	0.93	20.70	2.72	19.56	177.6	2.64	40.53
13	2.78	38.64	1321.6	2.53	6.38	3.32	102.93	1254.9	5.98	6.22	3.55	109.91	500.7	4.74	11.32
14	1.44	5.85	309.3	0.40	27.48	2.68	6.68	338.7	0.83	25.52	0.90	8.40	202.3	1.52	40.65
15	0.71	29.07	397.1	0.09	19.94	0.26	18.11	420.1	0.75	19.75	0.76	10.64	160.5	0.43	49.40
16	1.62	111.38	977.9	0.03	7.66	0.43	63.90	1076.8	1.04	7.66	13.36	52.80	347.1	0.61	18.79
17	3.71	39.59	1278.7	2.34	6.56	2.77	62.39	1402.5	7.15	5.88	10.71	81.32	602.5	4.54	11.61
18	0.69	15.07	336.0	0.13	24.52	0.97	11.23	341.3	0.60	24.53	0.96	13.81	173.2	0.64	44.85
19	3.04	34.60	1158.2	2.14	7.28	2.56	80.93	1223.8	6.60	6.69	7.50	23.73	602.4	5.75	13.38
20	0.75	19.10	450.2	0.28	18.39	1.66	18.19	497.5	0.70	16.70	0.90	24.42	189.4	0.91	38.16
21	5.88	224.32	1417.7	1.82	4.96	5.16	245.24	1453.8	5.30	4.79	8.46	283.63	534.5	2.41	3.91
22	1.08	13.00	316.7	0.38	26.07	2.15	14.79	349.1	1.37	23.41	1.26	13.01	160.2	1.71	48.06
23	4.67	37.31	1331.7	2.24	6.32	3.61	43.68	1460.0	8.72	5.76	5.75	49.03	674.4	3.22	11.53
24	2.37	35.31	989.7	1.71	8.43	2.25	68.33	968.5	4.73	8.20	2.61	102.07	474.0	2.84	13.81
25	1.00	6.42	302.8	0.36	28.06	1.72	6.84	298.3	1.14	28.22	0.50	13.86	171.7	2.50	45.50
26	1.01	48.51	666.5	0.05	11.90	0.61	38.64	708.8	0.65	11.50	1.26	19.15	248.8	0.78	31.37
27	2.69	39.14	1090.7	2.35	7.65	2.61	51.73	1092.4	6.22	7.51	3.09	37.57	541.6	5.62	14.54
28	1.10	15.64	367.4	0.27	22.45	2.18	14.41	390.3	1.16	21.14	1.28	17.33	165.7	1.39	44.36
29	4.72	42.14	1279.2	1.79	6.52	3.66	58.12	1349.2	7.45	6.11	4.78	44.45	606.9	3.07	12.83
30	2.51	50.86	1112.4	1.67	7.29	2.72	85.84	980.3	4.42	7.90	3.25	201.84	494.9	2.21	10.79
31	1.36	7.64	286.7	0.52	29.29	3.25	8.06	263.0	1.34	31.09	1.22	16.35	137.9	1.69	53.01
32	0.88	44.50	708.0	0.07	11.37	1.68	38.66	801.8	1.64	10.23	0.96	25.65	294.8	0.67	26.25
ACT BAG	2.08	29.03	744.8	6.63	11.14	1.80	37.44	758.2	3.52	10.68	3.16	27.64	386.6	3.77	20.17
CALC BAG	1.91	29.53	726.0	2.33	11.40	1.70	36.77	749.3	2.99	10.92	2.46	50.34	372.2	2.97	19.33
33	0.60	23.37	147.0	0.07	47.81	0.39	14.99	149.2	0.05	51.02	0.38	16.11	43.2	0.0	127.39
34	6.52	235.04	1744.0	0.96	4.16	3.68	161.56	1790.0	0.53	4.32	4.51	199.37	540.4	0.15	10.23
35	3.23	114.72	915.8	0.60	8.02	1.77	80.78	928.7	0.26	8.36	1.78	55.67	397.9	0.19	18.08
36	1.68	50.44	702.4	0.63	11.28	0.61	24.85	840.9	0.47	9.57	0.51	9.90	424.9	0.35	20.06
37	1.65	4.89	508.1	1.09	17.03	0.54	13.44	549.5	0.79	15.30	0.58	2.51	284.3	0.97	30.59
38	1.14	3.32	486.5	2.25	17.92	0.44	5.40	571.0	1.40	15.28	0.76	2.91	311.8	2.19	27.85
39	0.59	5.51	556.2	6.14	15.66	0.27	4.46	620.8	3.38	14.12	0.49	2.04	367.8	4.69	23.82

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

	VEH	YEAR	MAKE	MODEL	CID
	16	1973	CHEV	VEGA	140
MODE NO	HC	CO	CO2	NOX	MPG
1	4.52	2.85	900.2	4.24	9.66
2	1.77	1.86	250.1	1.99	34.31
3	3.64	3.55	733.2	2.63	11.83
4	2.38	1.79	565.2	4.83	15.42
5	1.98	1.26	483.1	4.70	18.06
6	0.91	0.71	155.6	1.80	55.60
7	3.07	5.72	692.1	6.80	12.49
8	0.83	0.68	114.7	2.40	74.99
9	1.73	2.30	485.5	4.79	17.95
10	0.89	0.97	172.9	1.93	50.09
11	1.89	3.44	550.9	5.52	15.79
12	1.38	1.46	149.8	2.35	56.71
13	2.13	3.34	596.8	5.72	14.58
14	1.11	1.07	151.3	1.52	56.71
15	1.37	1.82	168.3	0.79	50.58
16	3.11	4.41	417.4	1.04	20.44
17	2.60	2.77	589.2	6.50	14.75
18	1.19	1.51	147.3	1.15	57.83
19	2.55	3.69	548.0	5.69	15.80
20	1.44	2.09	189.5	1.59	44.98
21	3.23	6.92	715.6	6.91	12.05
22	1.42	1.73	177.9	1.77	47.94
23	3.60	2.95	643.6	7.47	13.46
24	1.77	2.41	478.8	4.95	18.18
25	1.14	1.32	143.7	3.00	59.43
26	2.45	4.03	274.3	1.98	30.77
27	1.97	2.34	534.5	6.17	16.30
28	1.36	2.08	145.3	1.27	58.07
29	3.44	3.37	591.2	5.96	14.61
30	2.27	4.20	550.7	5.12	15.72
31	1.23	1.31	136.8	1.65	62.16
32	2.37	4.66	265.0	1.23	31.71
ACT BAG	1.75	27.89	347.8	4.22	22.34
CALC BAG	1.72	6.10	351.7	3.53	24.20
33	0.27	1.57	63.7	0.11	132.44
34	3.03	27.80	706.1	0.77	11.69
35	1.66	12.94	393.9	0.39	21.16
36	1.30	13.95	336.2	0.26	24.50
37	1.39	7.93	229.4	1.42	36.04
38	1.39	6.60	250.6	2.59	33.45
39	1.43	12.88	296.1	4.05	27.66

	VEH	YEAR	MAKE	MODEL	CID
	17	1973	CHEV	CHEL	250
MODE NO	HC	CO	CO2	NOX	MPG
1	8.05	185.41	608.2	4.70	9.59
2	13.96	14.10	623.7	0.69	12.86
3	10.99	46.59	768.2	1.42	10.13
4	4.31	130.12	901.3	3.07	7.40
5	1.66	24.27	715.7	3.65	11.69
6	10.35	10.54	304.1	1.01	25.11
7	2.99	162.84	883.6	6.71	7.72
8	1.83	9.39	169.8	3.92	46.76
9	2.25	67.46	600.8	5.24	12.43
10	5.04	8.58	234.1	1.54	33.67
11	3.21	143.24	810.1	6.95	8.49
12	12.33	11.66	181.7	1.29	37.11
13	5.07	211.93	910.7	6.96	7.05
14	4.86	8.08	163.5	0.99	46.31
15	3.16	7.62	248.9	0.57	32.77
16	8.43	24.65	619.2	1.00	12.96
17	3.74	142.94	898.1	6.08	7.89
18	3.50	8.30	219.5	0.64	38.43
19	1.29	43.49	847.5	5.31	9.44
20	13.21	16.68	317.7	0.39	21.87
21	7.73	319.05	911.8	4.91	6.17
22	5.11	11.38	218.4	0.83	35.72
23	4.40	127.09	1072.5	5.38	6.80
24	1.65	60.07	835.1	6.16	9.50
25	4.97	9.56	150.5	0.61	48.45
26	3.27	14.09	391.5	0.76	20.77
27	2.54	73.97	794.4	7.35	9.68
28	4.59	9.74	171.7	0.73	39.53
29	5.18	118.08	1173.6	3.76	6.45
30	2.54	99.70	837.0	5.95	8.85
31	5.61	10.33	160.1	1.09	45.72
32	18.60	20.33	435.4	1.42	16.55
ACT BAG	1.99	20.02	531.7	4.14	15.60
CALC BAG	3.01	46.32	530.5	3.57	14.48
33	0.10	0.46	77.0	0.04	113.76
34	1.43	6.05	935.6	0.48	9.35
35	0.26	3.67	845.7	0.59	10.42
36	0.09	4.08	865.8	0.83	10.17
37	0.03	2.73	572.8	0.98	15.28
38	0.59	3.62	336.6	2.16	26.56
39	0.54	4.12	390.4	5.07	22.27

	VEH	YEAR	MAKE	MODEL	CID
	18	1973	CHEV	NOVA	307
MODE NO	HC	CO	CO2	NOX	MPG
1	7.72	124.54	1068.0	3.56	6.89
2	2.95	17.76	494.0	0.70	16.61
3	5.83	83.28	1340.2	1.44	5.96
4	3.29	59.32	736.5	1.56	10.56
5	10.66	52.39	522.9	2.31	13.89
6	1.62	11.94	266.5	0.47	30.35
7	41.09	219.40	686.7	1.50	7.64
8	2.67	10.77	220.5	0.64	36.09
9	14.30	95.38	590.3	2.53	11.44
10	2.20	10.85	250.9	0.52	32.28
11	22.69	163.22	658.6	2.03	8.99
12	2.94	13.21	250.4	0.63	31.65
13	26.97	164.00	730.3	2.45	8.27
14	2.16	11.27	211.7	0.80	37.60
15	2.67	15.36	324.7	0.62	24.83
16	5.18	32.40	835.2	1.02	9.83
17	14.49	107.17	820.1	3.14	8.55
18	1.66	18.70	382.5	0.44	23.53
19	16.99	165.19	588.8	1.77	8.86
20	2.56	24.14	457.3	0.74	17.74
21	41.28	287.41	843.8	2.06	6.19
22	2.60	17.03	331.3	0.84	24.23
23	4.83	78.34	913.2	3.14	8.44
24	17.64	77.14	585.6	2.77	11.83
25	1.27	12.92	266.5	0.47	30.54
26	3.65	34.09	541.8	1.17	14.62
27	8.17	75.47	699.8	3.40	10.59
28	1.68	19.11	310.5	0.85	25.66
29	4.36	80.30	886.1	2.20	8.65
30	15.10	179.21	555.6	2.06	9.99
31	1.13	14.87	235.0	0.61	32.63
32	3.37	45.49	620.0	1.00	12.64
ACT BAG	7.97	36.87	633.8	4.62	12.36
CALC BAG	7.50	55.92	476.3	1.69	15.10
33	0.46	11.24	67.1	0.02	102.63
34	5.91	12.20	1651.6	2.29	5.25
35	2.41	6.75	832.1	0.71	10.43
36	1.52	4.41	550.5	0.56	15.75
37	1.39	4.10	333.4	0.90	25.78
38	0.90	9.41	362.2	1.19	23.46
39	2.50	19.36	407.6	2.52	19.90

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D4

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES*

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	19	1973	CHEV	CHEL	307	20	1973	CHEV	MONT	350	21	1973	CHEV	MALI	350
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	9.09	148.64	1265.3	2.38	5.81	4.79	[illegible]	1204.1	1.91	6.32	[illegible]	[illegible]	1302.4	0.12	6.74
2	3.39	20.97	496.3	0.59	16.42	1.81	37.37	[illegible]	[illegible]	13.47	2.56	24.00	471.1	0.45	16.62
3	4.59	81.48	1494.0	1.87	5.42	3.81	87.72	1293.7	1.90	6.19	7.72	193.01	1215.7	0.76	6.97
4	5.20	79.05	833.7	2.07	9.11	2.29	27.41	995.8	0.87	9.48	4.52	106.85	720.1	0.80	9.84
5	4.61	80.48	734.4	2.51	10.14	2.09	16.21	637.4	1.41	13.22	3.65	85.00	599.4	1.40	11.90
6	1.49	16.99	299.8	0.92	26.60	0.63	11.92	286.1	0.58	28.92	0.57	24.69	288.[illegible]	0.20	28.65
7	11.22	339.09	855.1	1.47	6.23	1.74	249.14	800.2	0.94	7.41	4.56	381.66	611.8	0.63	7.15
8	2.48	25.26	154.5	1.31	43.92	5.76	25.07	224.[illegible]	1.20	31.51	2.77	11.53	214.5	0.18	38.73
9	3.12	70.10	607.9	2.47	12.19	0.40	93.31	602.5	2.31	11.91	3.15	58.81	555.6	2.79	13.81
10	2.02	22.10	362.5	1.01	21.99	1.45	11.85	[illegible]	0.47	27.28	2.12	14.83	247.8	0.27	31.98
11	10.14	309.30	720.7	1.33	6.78	3.81	183.45	745.8	0.52	8.48	7.42	281.16	417.2	1.27	9.44
12	2.84	17.55	288.4	0.64	27.31	1.85	21.17	354.9	0.61	22.52	0.73	18.56	284.7	[illegible]	27.58
13	7.66	212.77	943.5	2.37	6.82	3.20	177.36	786.4	0.12	8.29	7.90	272.1[illegible]	484.[illegible]	1.41	7.80
14	1.91	11.30	267.0	0.65	30.52	0.73	13.38	295.2	[illegible]	32.08	1.85	12.36	232.[illegible]	0.31	34.17
15	1.72	24.68	335.5	0.59	23.38	1.19	31.27	392.9	0.38	19.91	1.70	31.21	324.8	[illegible]	[illegible]
16	-0.21	58.99	817.4	0.82	9.76	0.68	92.22	973.7	1.00	7.92	2.88	63.11	543.8	0.58	12.92
17	8.77	277.05	924.7	1.61	6.39	2.72	271.01	885.0	0.55	6.83	7.24	218.52	767.2	1.84	[illegible]
18	0.55	19.42	319.2	0.54	25.25	1.46	23.79	312.7	0.53	25.01	1.47	15.16	290.7	0.28	28.21
19	9.04	296.86	877.8	1.55	6.46	7.67	139.76	870.0	[illegible]	7.47	[illegible]	187.25	737.[illegible]	1.34	8.42
20	0.44	25.10	365.6	0.47	21.87	1.25	36.48	[illegible]	0.56	17.78	1.04	25.87	407.8	0.35	19.52
21	14.13	458.23	978.6	1.17	5.09	6.41	410.98	1570.1	[illegible]	[illegible]	12.11	514.7[illegible]	753.1	0.81	5.85
22	1.38	17.09	334.9	0.51	24.24	2.04	23.12	[illegible]	0.67	21.49	[illegible]	20.56	290.5	[illegible]	26.42
23	5.95	127.87	1215.5	2.72	6.18	4.49	56.94	1212.2	[illegible]	6.74	4.91	107.18	937.[illegible]	1.35	[illegible]
24	6.72	214.72	626.1	1.45	9.01	0.03	222.04	716.8	2.18	8.52	4.63	105.27	601.5	2.00	11.26
25	2.22	14.64	264.0	0.58	30.18	1.50	18.95	266.8	[illegible]	29.45	1.73	16.28	250.7	0.24	31.49
26	3.21	44.00	608.2	0.78	12.91	1.99	62.02	610.2	0.63	12.43	3.28	61.70	534.[illegible]	[illegible]	17.82
27	6.46	202.25	824.9	2.26	7.63	1.88	104.28	817.5	0.81	8.99	5.49	137.54	[illegible]	1.91	7.61
28	2.36	21.04	285.1	0.57	27.25	0.87	23.98	317.4	0.50	22.66	5.43	22.72	275.1	0.22	27.06
29	6.63	141.58	1090.6	1.69	6.65	2.87	55.20	1031.9	0.13	7.87	7.38	187.36	894.0	1.02	7.32
30	8.79	368.16	738.4	0.85	6.60	5.83	115.98	[illegible]	0.61	9.24	8.11	175.98	570.7	[illegible]	10.24
31	2.36	20.21	251.4	0.92	30.54	1.86	13.56	255.4	0.79	31.40	2.12	16.99	233.[illegible]	0.23	[illegible]
32	2.98	50.08	577.4	0.81	13.34	2.06	57.06	711.5	0.65	11.09	2.94	88.65	[illegible]	0.24	11.73
ACT BAG	3.51	92.42	564.5	1.14	12.81	5.28	69.52	[illegible]	2.27	12.71	[illegible]	94.12	653.2	0.75	14.58
CALC BAG	3.76	94.99	562.3	1.41	12.27	1.93	66.20	587.1	1.72	13.11	3.32	91.67	467.4	0.75	14.27
33	0.63	5.50	123.5	0.15	66.15	0.75	8.81	143.0	0.15	55.76	0.24	5.83	70.1	0.04	110.78
34	6.33	56.46	1482.3	1.78	5.58	3.76	84.42	1712.1	1.56	4.70	4.79	116.55	1401.1	0.71	5.55
35	2.25	19.84	833.8	0.95	10.18	1.67	33.06	871.0	0.74	9.36	1.40	43.15	810.2	0.35	10.06
36	1.32	9.50	209.[illegible]	0.90	14.11	0.97	20.65	578.5	0.50	14.46	0.94	33.41	544.5	0.24	14.78
37	1.72	6.99	408.6	1.24	20.88	1.01	14.22	394.2	0.41	21.15	0.72	25.41	345.3	0.14	22.91
38	1.00	19.99	436.8	1.23	18.83	0.65	5.49	406.0	0.67	21.30	0.57	20.85	353.0	0.29	22.80
39	1.07	30.53	470.5	1.81	17.01	0.81	6.29	437.7	2.12	19.72	0.93	48.24	407.1	0.58	18.27

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	22	1973	CHEV	MONT	350	23	1973	CHEV	CAPR	400	24	1973	CHRY	NEWP	400
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	6.73	72.67	1173.1	6.23	6.78	7.65	49.74	1666.0	5.80	5.02	7.81	72.72	1116.8	5.90	7.06
2	1.61	47.96	422.9	-0.01	17.63	5.43	18.61	404.9	0.17	19.66	5.60	49.24	404.3	0.53	17.77
3	5.40	156.85	1094.1	0.50	6.54	9.50	106.27	1405.4	0.50	5.54	10.13	129.35	1791.7	2.35	4.38
4	4.15	50.73	637.3	3.48	12.15	4.49	24.07	1062.0	2.81	7.97	5.24	34.69	986.0	3.89	8.40
5	3.13	32.17	600.6	3.19	13.43	2.96	26.80	830.9	3.06	10.06	4.60	28.45	760.4	4.64	10.83
6	1.03	10.39	237.2	0.34	34.57	7.37	6.48	194.1	0.20	38.95	4.55	16.49	254.3	0.77	30.12
7	4.16	158.89	730.5	2.24	8.93	6.51	280.62	1007.2	1.32	6.04	5.39	50.85	989.8	7.43	8.17
8	2.66	7.33	199.7	1.11	40.41	5.88	8.14	213.6	0.83	36.19	8.11	15.60	226.0	0.83	32.13
9	2.40	19.23	620.8	4.05	13.48	3.08	87.34	911.4	2.25	8.36	3.30	31.92	820.2	4.68	10.08
10	1.96	10.44	233.2	0.52	34.70	6.18	6.39	205.2	0.28	37.79	4.50	23.16	226.8	0.64	31.98
11	3.33	97.26	895.7	4.09	8.38	4.88	178.38	995.1	2.36	6.88	7.90	60.83	915.1	7.12	8.57
12	2.39	17.02	267.2	1.89	29.43	7.97	9.00	249.5	1.10	30.66	7.18	30.71	243.2	0.98	28.24
13	3.82	87.97	973.0	5.08	7.90	4.75	146.90	1048.4	3.26	6.86	22.25	126.06	1040.2	6.69	6.78
14	0.73	14.79	222.7	0.70	35.75	4.60	7.50	196.1	0.52	39.89	5.65	24.78	203.0	0.68	34.15
15	1.06	33.21	280.0	0.19	26.45	2.24	13.06	298.0	0.0	27.26	3.80	46.00	308.5	0.0	22.59
16	2.18	111.04	678.8	-0.02	10.32	3.06	45.80	764.9	-0.02	10.48	7.87	108.81	758.3	-0.02	9.30
17	4.41	67.12	1055.0	6.65	7.56	3.88	67.72	1219.7	4.57	6.63	7.33	91.30	1137.2	6.10	6.81
18	0.62	18.86	279.5	0.60	28.53	3.64	11.19	241.5	0.14	32.79	5.02	35.00	233.0	0.54	29.20
19	4.34	104.90	973.7	4.32	7.70	4.31	108.26	1046.1	2.97	7.22	6.04	76.10	972.1	5.63	7.99
20	1.12	31.43	294.9	0.83	25.51	2.23	15.49	339.0	0.20	23.96	9.50	57.53	359.6	1.12	18.49
21	5.14	210.03	1090.2	3.55	6.18	6.68	283.90	1231.3	2.20	5.22	23.29	164.92	1077.5	6.51	6.29
22	0.76	22.60	313.0	1.07	25.29	2.99	11.73	300.5	0.56	27.02	6.81	37.29	260.8	0.31	26.03
23	5.70	104.10	1087.8	5.69	6.99	4.15	36.06	1286.9	4.14	6.54	8.52	100.88	1252.9	6.62	6.17
24	2.88	75.21	747.5	4.34	10.15	2.30	60.21	837.9	3.51	9.44	5.07	72.86	850.2	4.22	9.05
25	0.55	17.33	227.8	0.86	34.57	3.12	9.41	224.8	1.03	35.57	5.47	29.85	263.7	0.93	27.06
26	1.37	69.58	432.2	0.12	16.26	1.92	30.09	493.6	-0.01	16.23	6.35	98.36	439.4	0.13	14.44
27	2.97	50.38	775.6	5.44	10.27	2.35	48.11	970.1	4.40	8.43	6.31	87.49	973.2	5.44	7.85
28	1.04	19.26	260.9	0.28	30.14	3.48	13.12	263.3	0.28	30.09	5.42	46.07	281.3	0.71	23.93
29	5.13	87.83	813.4	3.80	9.17	4.44	44.16	1253.6	4.22	6.64	8.79	119.73	1210.4	6.14	6.22
30	2.85	48.26	754.0	4.92	10.58	4.52	180.13	1001.5	1.96	6.83	7.27	114.09	810.2	4.51	8.77
31	1.55	19.36	213.5	1.19	35.66	4.34	7.60	198.7	0.40	39.55	8.67	41.80	159.4	0.82	35.14
32	1.42	60.48	485.2	-0.01	15.18	1.99	29.80	531.2	-0.01	15.19	7.01	117.23	478.6	0.14	12.96
ACT BAG	1.64	38.90	554.0	3.05	14.31	2.37	47.46	609.3	2.29	12.84	4.63	9.83	608.4	3.52	13.90
CALC BAG	1.94	39.14	526.3	2.37	14.94	2.96	46.03	612.8	2.03	12.78	5.53	46.54	592.2	3.08	13.00
33	0.41	7.27	95.5	0.03	82.01	0.41	1.24	104.9	0.05	82.10	0.68	10.25	91.1	0.01	81.17
34	3.85	64.54	1183.3	0.34	6.84	4.91	14.87	1250.4	0.61	6.84	8.41	131.21	1117.6	-0.13	6.57
35	1.07	34.08	828.9	0.30	10.02	2.34	8.75	676.6	0.33	12.72	3.91	63.56	716.9	0.10	10.70
36	0.80	26.59	552.6	0.20	14.87	1.08	14.05	615.1	0.41	13.85	2.61	39.34	528.0	0.08	14.84
37	0.99	21.43	346.4	0.52	23.16	0.99	5.76	428.5	0.42	20.14	2.06	11.65	403.6	0.85	20.72
38	0.87	2.61	378.1	1.55	23.05	0.78	4.53	424.7	1.44	20.43	1.07	3.95	433.2	3.06	20.05
39	0.66	6.80	424.9	2.68	20.28	0.62	4.64	490.1	3.57	17.76	1.77	22.35	520.9	3.49	15.80

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

[illegible]

[illegible] MODE RESULTS ON INDIVIDUAL VEHICLES*

[illegible]

MODE NO	VEH 25 HC	YEAR [illegible] CO	MAKE [illegible] CO2	MODEL [illegible] NOX	CID [illegible] MPG	VEH [illegible] HC	YEAR [illegible] CO	MAKE DODG CO2	MODEL DART NOX	CID [illegible] MPG	VEH 28 HC	YEAR [illegible] CO	MAKE DODG CO2	MODEL DART NOX	CID [illegible] MPG
1	4.64	[illegible]	[illegible]	[illegible]	11.48	[illegible]	[illegible]	1.04	[illegible]	[illegible]	5.41	[illegible]	[illegible]	5.87	[illegible]
2	0.87	13.77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21.21	[illegible]	[illegible]	[illegible]	1.07	20.49
3	7.44	134.75	[illegible]	1.14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1341.1	1.07	[illegible]
4	2.18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28.44	[illegible]	[illegible]	10.94
5	1.11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21.44	557.4	[illegible]	[illegible]
6	0.51	12.11	117.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	12.50	[illegible]	[illegible]	17.18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41.41	[illegible]	[illegible]	[illegible]
8	0.41	[illegible]	124.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.49	[illegible]
9	1.60	19.70	[illegible]	[illegible]	[illegible]	[illegible]	14.84	[illegible]	[illegible]	14.14	[illegible]	27.49	700.2	[illegible]	[illegible]
10	1.75	17.18	[illegible]	1.49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27.57
11	1.57	22.75	475.8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	811.1	[illegible]	[illegible]
12	1.09	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21.21	4.51	[illegible]	223.1	1.75	[illegible]
13	3.13	50.07	511.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	46.84	[illegible]	[illegible]	[illegible]
14	0.81	[illegible]	120.5	1.21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.31	14.17	214.1	[illegible]	[illegible]
15	0.77	16.51	[illegible]	0.47	[illegible]	[illegible]	[illegible]	[illegible]	1.17	26.74	[illegible]	27.92	154.1	[illegible]	[illegible]
16	1.25	33.52	[illegible]	0.51	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12.41	[illegible]	[illegible]	501.4	0.45	[illegible]
17	3.10	55.23	[illegible]	[illegible]	[illegible]	2.45	16.15	[illegible]	10.05	10.13	[illegible]	51.14	341.1	[illegible]	[illegible]
18	1.43	13.84	[illegible]	1.21	[illegible]	[illegible]	15.47	[illegible]	[illegible]	27.71	[illegible]	12.52	177.7	[illegible]	[illegible]
19	2.10	32.13	520.7	[illegible]	17.27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.51	[illegible]	[illegible]	[illegible]	[illegible]
20	0.81	18.28	177.2	1.34	42.47	[illegible]	[illegible]	[illegible]	[illegible]	15.17	2.14	[illegible]	[illegible]	[illegible]	[illegible]
21	2.42	[illegible]	[illegible]	[illegible]	[illegible]	4.14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	71.74	[illegible]	[illegible]	[illegible]
22	1.57	17.27	105.8	1.57	44.57	2.14	[illegible]	[illegible]	[illegible]	[illegible]	3.10	24.84	[illegible]	[illegible]	[illegible]
23	5.27	72.44	614.1	[illegible]	11.94	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24.47	[illegible]	[illegible]	[illegible]
24	1.51	24.09	449.0	[illegible]	16.05	[illegible]	[illegible]	[illegible]	10.74	[illegible]	4.45	[illegible]	[illegible]	[illegible]	[illegible]
25	0.35	[illegible]	[illegible]	1.37	[illegible]	[illegible]	10.11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	0.95	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	52.17	[illegible]	1.17	[illegible]
27	2.23	32.27	[illegible]	4.44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	2.63	[illegible]	132.7	1.01	[illegible]	1.27	12.87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	3.86	57.12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	871.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	1.94	31.91	451.7	[illegible]	17.47	[illegible]	[illegible]	[illegible]	11.48	12.45	[illegible]	67.51	[illegible]	[illegible]	10.41
31	0.55	12.45	[illegible]	[illegible]	71.21	1.04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.27	[illegible]
32	1.16	28.60	219.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	57.10	[illegible]	[illegible]	14.01
ACT BAG	1.93	14.88	328.1	4.03	[illegible]	2.54	[illegible]	[illegible]	7.73	16.57	2.71	22.71	[illegible]	4.71	[illegible]
CALC BAG	1.41	18.71	315.5	2.91	25.40	[illegible]	[illegible]	[illegible]	[illegible]	17.27	[illegible]	26.05	[illegible]	4.38	[illegible]
33	0.31	5.50	36.4	0.01	192.67	[illegible]	0.82	196.8	0.11	[illegible]	0.35	3.94	[illegible]	0.03	[illegible]
34	3.55	62.11	722.2	0.29	[illegible]	[illegible]	[illegible]	[illegible]	1.26	[illegible]	4.52	61.26	[illegible]	0.27	8.34
35	1.30	17.17	650.8	0.75	13.02	1.21	5.54	[illegible]	0.87	12.24	1.45	18.54	735.9	0.41	11.52
36	1.24	13.70	391.8	0.58	21.27	[illegible]	4.31	[illegible]	[illegible]	16.70	[illegible]	20.82	[illegible]	0.80	14.25
37	0.60	2.90	299.0	1.17	29.06	1.92	2.84	321.4	[illegible]	26.77	1.71	10.41	365.8	2.20	22.90
38	0.84	2.59	223.7	2.88	38.51	1.51	[illegible]	331.5	5.24	25.13	1.42	4.31	287.0	4.41	28.50
39	0.71	2.38	283.5	4.45	30.66	2.38	8.49	396.4	5.67	21.28	1.82	14.37	337.1	4.27	24.29

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D4

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	28	1973	FORD	FINT	122	29	1973	FORD	MAVE	200	30	1973	FORD	TORI	302
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	5.21	76.80	736.6	9.24	10.16	5.70	61.56	965.5	5.32	8.22	0.59	124.91	1336.9	5.62	5.78
2	1.40	21.79	177.4	1.58	41.08	2.16	18.63	259.5	0.90	30.02	4.02	22.34	82.3	0.24	68.21
3	6.43	142.30	688.9	2.31	9.51	5.95	195.38	769.5	2.11	8.10	2.83	144.75	1416.4	1.37	5.37
4	2.72	32.15	489.4	7.43	16.18	2.76	30.40	576.0	2.29	13.99	8.06	65.93	1114.0	5.06	7.14
5	2.47	22.65	413.7	7.20	19.42	2.27	10.16	492.1	3.84	17.22	4.47	25.69	843.0	5.69	9.89
6	0.59	8.45	106.9	1.62	72.70	1.08	5.37	196.7	0.55	42.56	2.08	8.12	329.6	0.87	25.44
7	3.74	70.66	527.5	5.77	13.65	3.91	77.43	658.0	5.95	11.21	7.82	174.75	987.3	5.49	6.90
8	0.74	7.49	136.2	2.86	59.05	0.76	6.93	139.8	1.14	57.96	4.36	13.56	244.2	0.64	31.78
9	1.69	37.80	395.7	5.79	19.28	2.08	8.02	521.9	1.29	16.40	4.06	18.39	789.1	7.38	10.68
10	1.57	13.61	120.2	1.84	60.54	2.09	20.16	139.3	1.23	49.98	3.42	22.03	232.4	0.53	31.94
11	3.93	74.31	474.2	7.21	14.71	2.80	27.37	588.9	6.09	13.84	5.61	41.20	995.8	10.30	8.23
12	1.19	11.74	190.5	2.56	41.73	2.92	17.05	163.6	0.97	44.46	3.68	23.10	278.0	0.90	26.71
13	4.31	67.01	498.3	7.75	14.38	2.85	26.56	629.4	7.09	13.05	5.65	30.47	1077.2	10.96	7.77
14	0.73	11.48	109.4	1.69	68.39	1.50	9.67	145.2	0.98	53.74	3.57	16.00	204.2	0.80	36.67
15	1.80	22.51	300.3	0.87	26.00	1.42	37.63	162.8	0.39	39.20	3.25	12.20	289.8	0.51	27.80
16	5.76	64.31	234.9	2.31	25.05	3.25	139.27	382.6	-0.02	14.51	9.61	92.51	568.3	2.31	11.93
17	4.13	66.50	515.7	7.73	14.02	3.48	34.06	686.0	6.19	11.82	7.25	61.94	1149.5	8.53	6.99
18	1.03	15.25	94.2	1.19	73.12	1.70	13.78	153.7	0.82	49.10	3.30	20.67	199.6	0.80	36.59
19	4.08	56.16	541.5	7.45	13.81	3.52	45.77	650.7	6.32	12.10	6.15	37.54	945.5	9.16	8.67
20	1.36	21.12	145.7	1.46	48.44	2.35	27.96	171.5	1.04	39.83	4.57	27.78	307.5	0.45	24.26
21	7.46	90.32	567.1	6.60	12.11	4.68	110.48	744.9	6.98	9.49	9.22	189.71	1182.7	7.54	5.88
22	1.42	17.31	128.7	1.37	55.32	2.19	23.91	171.0	0.91	41.18	4.92	23.69	254.6	0.62	28.87
23	6.24	77.27	598.9	10.79	11.99	4.06	63.05	674.1	3.99	11.29	8.57	81.82	1214.2	5.49	6.18
24	2.07	36.27	429.0	7.24	18.02	2.39	14.70	513.9	5.32	16.30	5.02	46.51	907.0	7.67	8.71
25	0.65	12.60	140.4	2.18	54.71	1.70	13.85	128.8	0.96	56.92	5.47	20.79	173.7	0.45	39.67
26	2.27	45.83	200.5	2.17	31.73	2.03	55.64	268.4	0.99	24.50	6.43	32.81	362.8	0.56	20.42
27	2.80	35.57	453.5	8.21	17.13	2.70	20.56	571.5	6.06	14.49	5.50	41.52	1095.9	7.00	7.53
28	1.68	18.78	144.7	1.52	49.43	2.15	29.88	169.2	0.58	39.81	5.44	19.17	210.9	0.50	34.36
29	3.86	65.60	547.0	9.82	13.40	3.39	55.89	654.5	3.25	11.79	9.00	78.22	1026.2	3.75	7.54
30	2.24	54.44	455.7	7.40	16.18	2.97	46.19	590.2	6.05	13.20	4.80	26.93	847.6	7.95	9.81
31	0.70	11.63	112.9	2.60	66.55	1.26	13.28	151.6	0.95	50.31	4.61	11.88	201.0	0.68	37.89
32	2.61	49.02	198.9	0.74	31.23	2.46	57.77	384.9	0.68	18.36	6.67	35.50	383.7	0.58	19.27
ACT BAG	2.27	25.23	274.0	4.96	27.66	2.11	23.60	366.5	3.94	21.63	3.10	33.04	492.2	4.17	16.02
CALC BAG	1.99	27.37	296.7	4.71	25.65	2.08	25.15	363.9	2.90	21.65	3.92	32.86	561.2	3.65	14.20
33	0.28	6.63	27.4	0.0	229.12	0.49	20.07	46.7	0.01	111.20	0.78	9.48	71.2	0.02	100.16
34	0.95	2.48	568.4	0.13	15.43	5.33	218.46	610.5	0.24	9.24	7.72	80.07	860.8	0.25	8.78
35	2.95	39.75	406.1	0.59	18.57	2.67	110.02	317.5	0.12	17.79	3.69	47.60	433.4	0.10	17.07
36	1.49	21.30	257.2	0.26	30.04	1.70	61.29	275.9	0.14	23.50	2.46	25.45	357.0	0.13	21.91
37	1.31	19.60	198.9	1.09	37.95	1.25	16.11	228.5	0.70	34.43	1.12	3.91	347.1	0.69	24.88
38	0.99	6.87	188.3	2.85	43.90	1.18	1.59	250.2	1.81	33.56	1.29	5.63	298.8	2.65	21.55
39	0.91	2.55	272.2	7.25	31.80	1.12	1.77	310.4	3.19	28.02	1.93	16.92	407.8	3.33	20.15

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES*

[illegible]

MODE NO	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	31	1973	FORD	[illegible]	[illegible]	[illegible]	[illegible]	FORD	[illegible]	[illegible]	[illegible]	[illegible]	FORD	[illegible]	[illegible]
	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	7.28	63.76	1325.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	3.23	34.69	630.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	7.55	87.21	1473.0	1.54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	4.71	56.25	916.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	3.68	33.31	702.8	4.11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	1.73	19.48	295.8	0.76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	5.89	133.01	889.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	1.45	17.33	248.5	0.58	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	2.35	25.73	740.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	1.57	20.82	287.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	4.50	54.92	884.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	2.26	30.28	344.6	0.71	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	4.20	45.96	914.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	1.26	15.84	257.1	0.69	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	1.82	19.41	421.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	6.28	109.52	1030.2	[illegible]	7.16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	4.92	50.70	1015.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	1.78	24.92	318.7	[illegible]	24.38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	4.41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	2.23	34.50	455.8	0.73	17.17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	226.98	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	28.28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	6.81	77.81	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	3.34	27.57	738.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	20.59	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	3.54	54.65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	4.11	41.12	874.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	2.06	31.17	[illegible]	[illegible]	22.71	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	6.49	[illegible]	1055.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	3.90	35.88	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	1.34	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
32	4.09	56.75	717.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ACT BAG	2.26	37.70	592.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CALC BAG	[illegible]	[illegible]	558.5	[illegible]	14.15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
33	0.56	8.52	76.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
34	6.58	101.62	918.8	0.32	8.07	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
35	4.23	85.21	964.4	0.82	7.98	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
36	2.80	52.63	604.8	0.56	12.75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
37	1.24	16.51	425.6	0.79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38	1.70	9.47	358.8	[illegible]	23.41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
39	2.01	20.19	397.7	[illegible]	20.36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
MODE	34	1973	FORD	LTD	400	35	1973	MAZD	RX3	70	36	1973	MERC	MARQ	429
NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	7.99	77.42	1530.5	14.99	5.29	18.80	94.90	458.5	3.95	12.30	10.44	177.00	1639.5	7.38	4.70
2	6.58	52.40	392.6	2.25	17.90	14.09	51.89	144.6	0.33	30.51	1.73	22.29	334.5	0.59	22.67
3	12.47	224.14	1193.1	12.08	5.60	66.73	280.22	750.9	1.64	6.33	18.14	322.41	1326.0	1.45	4.70
4	6.14	51.84	959.4	10.42	8.37	10.11	63.50	378.7	1.64	17.38	2.76	36.30	1134.5	2.72	7.27
5	4.30	10.02	792.5	8.54	10.80	5.54	42.02	293.8	2.16	24.05	1.82	15.25	915.2	4.12	8.39
6	12.44	10.77	204.0	2.90	34.09	5.06	23.27	145.3	0.30	44.65	0.36	6.45	276.0	0.39	30.69
7	4.87	16.01	784.2	13.73	10.76	9.49	132.59	315.0	1.63	16.04	3.40	48.35	1157.2	10.67	7.25
8	13.84	5.68	174.9	1.97	38.98	2.22	11.66	117.7	0.33	62.05	0.44	5.33	263.1	1.15	32.52
9	10.82	5.36	739.5	9.45	11.35	4.15	36.27	249.5	1.84	27.77	2.02	14.64	878.3	4.79	9.78
10	16.94	18.80	191.7	1.05	32.27	2.97	14.49	116.7	0.42	59.62	5.87	15.92	139.1	1.43	48.58
11	4.28	17.74	914.0	12.67	9.29	6.15	78.46	322.7	2.41	19.07	4.69	71.79	1002.8	9.79	8.36
12	20.63	27.21	170.4	1.80	31.86	2.35	17.03	110.3	0.37	61.40	8.07	20.62	268.4	1.28	27.20
13	4.67	14.87	1016.1	12.74	8.42	6.02	60.20	362.8	3.02	18.63	3.71	36.79	1073.9	9.64	8.04
14	15.21	14.59	161.8	1.87	38.10	1.11	11.80	104.8	0.25	69.94	4.79	12.57	138.5	0.64	51.22
15	4.68	45.38	213.4	0.86	29.62	2.88	24.81	137.8	0.18	47.73	3.55	26.32	182.3	0.39	37.78
16	10.24	159.42	542.0	0.42	10.76	3.92	54.90	288.1	0.48	22.95	7.30	137.96	402.8	0.29	13.70
17	5.26	30.03	1027.2	11.57	8.12	10.10	92.92	387.2	2.90	15.69	4.79	49.93	1105.1	8.07	7.40
18	16.31	31.31	162.4	2.12	33.71	3.59	20.16	97.6	0.23	63.10	0.94	16.21	175.0	0.38	43.63
19	5.31	30.86	874.3	11.94	9.45	5.70	60.76	364.1	2.67	18.58	3.12	38.86	1030.3	7.45	8.06
20	16.28	38.92	250.2	2.29	24.45	3.36	27.02	157.9	0.22	42.07	6.64	21.56	231.6	0.74	30.98
21	4.73	35.86	1171.0	18.40	7.14	12.58	181.15	315.1	1.46	13.87	6.25	216.29	952.0	7.97	6.77
22	17.85	21.10	242.9	1.50	26.68	2.58	17.78	116.2	0.30	58.28	4.52	24.91	195.9	1.04	35.58
23	7.78	67.19	1200.9	12.97	6.67	8.44	99.91	459.0	1.96	13.81	7.86	108.24	1181.1	5.18	6.45
24	3.87	10.57	776.4	10.24	10.75	5.04	67.16	330.4	2.02	19.30	2.32	21.61	852.8	6.79	9.93
25	13.37	12.75	165.5	1.82	38.94	4.89	44.58	120.5	0.24	43.06	3.02	9.38	192.5	1.90	40.93
26	7.81	63.07	369.5	2.17	17.99	1.45	34.40	117.1	0.22	50.50	2.90	29.99	428.2	0.91	18.32
27	4.44	15.07	906.3	10.49	9.40	4.43	49.30	315.0	2.64	21.86	3.32	39.41	938.4	8.74	9.74
28	14.29	33.03	184.8	0.95	31.47	1.07	19.28	113.5	0.27	60.30	8.75	27.14	163.0	0.63	38.03
29	7.84	68.43	1089.1	11.52	7.27	6.97	81.03	488.9	1.83	13.90	7.44	103.92	1012.1	3.69	7.40
30	3.61	14.94	938.6	11.48	9.12	5.60	55.64	291.4	2.52	22.38	2.46	26.75	772.8	9.32	10.78
31	14.48	14.35	131.2	1.35	44.45	1.12	12.82	87.5	0.36	79.79	3.63	12.73	184.9	1.33	41.01
32	9.15	68.39	439.8	1.49	15.40	2.90	50.29	157.2	1.00	36.16	4.75	42.69	346.4	0.67	20.71
ACT BAG	7.92	28.85	534.2	6.84	14.68	4.14	32.02	400.8	1.45	18.33	4.59	37.00	605.8	5.27	13.08
CALC BAG	11.49	26.22	530.8	5.85	14.59	3.58	33.84	343.7	1.18	21.74	3.14	31.71	576.1	4.06	13.96
33	9.95	27.13	35.9	0.04	79.57	2.05	5.08	56.4	0.01	125.15	1.79	27.42	61.0	-0.01	80.86
34	11.82	334.81	784.9	0.24	6.58	17.11	97.22	717.7	0.14	9.60	17.08	309.25	848.9	-0.04	6.39
35	6.49	181.19	412.8	0.17	12.36	0.41	6.71	1056.6	0.43	8.31	5.00	104.93	581.6	0.14	11.65
36	3.36	111.60	387.1	0.20	15.49	0.79	2.04	985.5	0.16	8.98	2.26	44.22	534.4	0.14	14.53
37	4.58	30.96	371.3	1.76	20.43	0.61	9.51	647.8	0.58	13.35	0.66	6.11	480.2	0.69	18.04
[illegible]	21.58	3.50	361.8	5.74	20.37	0.14	1.96	239.4	0.45	25.88	0.75	4.11	451.1	2.11	19.30
[illegible]	17.00	7.45	422.6	4.18	18.18	0.04	2.10	371.9	1.19	23.65	1.14	10.74	491.0	4.33	17.35

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	37	1973	OLDS	CUTL	350	38	1973	OLDS	DELT	455	39	1973	PLYM	SATE	318
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	6.33	33.00	1422.7	6.34	5.94	5.50	75.27	[illegible]	10.18	5.14	9.79	84.34	1384.0	9.01	5.74
2	2.62	12.41	496.7	0.89	16.92	1.83	22.35	501.0	0.21	16.38	3.24	24.98	425.4	1.07	18.69
3	7.49	30.53	1566.6	3.14	5.42	5.44	32.54	1319.2	5.60	6.44	5.07	59.32	1454.0	1.88	5.18
4	4.59	32.94	805.6	3.52	10.18	3.90	30.11	861.3	10.71	9.66	5.14	27.66	775.2	4.82	10.58
5	3.84	12.24	641.8	4.79	13.18	2.75	15.24	639.4	10.11	12.14	5.50	15.82	662.6	5.17	12.10
6	2.03	7.08	259.0	0.87	32.09	2.32	8.68	241.5	1.42	33.31	1.90	15.39	229.5	2.07	34.17
7	4.82	34.81	913.5	7.38	9.02	3.91	13.54	937.0	15.60	9.13	9.47	122.06	811.5	7.80	7.85
8	4.57	6.94	177.5	0.74	43.74	2.09	10.01	237.1	2.55	34.22	1.91	11.65	216.3	1.50	36.55
9	3.07	12.84	683.4	3.87	12.44	2.29	10.31	672.1	7.97	12.72	3.31	35.04	538.8	4.87	14.65
10	4.48	7.43	235.3	0.74	33.99	2.66	13.09	246.0	2.09	32.92	2.17	14.99	235.8	1.27	33.34
11	3.62	14.33	875.0	6.25	9.72	2.15	15.60	902.3	15.63	9.56	5.75	75.47	872.9	7.31	8.78
12	5.82	10.88	237.1	1.60	32.56	5.40	15.03	271.3	1.58	26.45	2.71	17.02	224.8	1.16	34.11
13	4.66	30.60	972.4	7.75	8.57	2.27	14.93	893.3	14.80	9.48	5.73	75.62	897.2	7.27	8.53
14	4.03	8.38	180.0	0.60	43.09	2.70	11.72	190.4	2.14	39.62	2.06	13.50	210.7	1.45	37.11
15	2.09	16.43	311.2	0.78	25.81	1.32	11.31	311.8	0.85	25.98	1.59	23.95	273.1	0.88	27.46
16	4.27	32.74	771.3	1.24	10.61	2.68	43.43	759.2	1.25	10.23	3.61	43.72	688.7	0.45	11.35
17	5.24	32.51	946.4	6.78	8.75	2.34	21.42	1042.1	12.65	8.15	6.47	72.05	775.9	6.03	7.78
18	2.14	11.24	253.4	1.05	31.95	2.20	10.74	250.5	1.18	30.91	2.17	17.58	262.0	2.70	29.80
19	5.02	37.70	861.3	6.11	9.48	2.62	17.73	935.7	12.63	8.58	7.06	119.21	937.2	6.62	7.74
20	2.20	12.95	327.7	1.16	25.09	2.41	20.70	327.1	1.17	23.58	2.50	24.34	317.0	2.98	21.44
21	7.49	139.77	996.7	7.61	7.16	2.85	17.77	1140.5	15.55	7.50	4.85	227.22	993.5	6.14	5.45
22	7.40	11.78	192.5	1.13	37.05	2.50	11.47	193.3	1.11	35.04	2.22	22.11	300.6	2.16	25.20
23	6.53	73.46	1032.3	4.55	7.60	4.05	45.27	1155.3	12.01	7.14	7.20	85.63	1144.2	5.75	6.81
24	3.80	20.82	675.1	6.21	12.33	1.94	14.12	741.0	11.81	10.85	5.53	67.66	739.5	6.49	9.92
25	5.39	10.32	168.0	1.45	44.07	2.06	11.12	256.4	1.54	31.37	1.87	14.25	234.0	1.35	33.84
26	3.48	27.42	501.1	1.31	15.94	2.21	41.15	531.1	0.67	14.81	2.55	44.12	435.1	1.77	15.41
27	4.13	24.66	779.1	6.98	10.08	2.23	17.77	884.9	11.99	9.55	5.80	65.71	822.6	5.98	8.95
28	4.69	14.39	224.9	1.21	33.93	2.24	14.72	249.0	1.99	29.89	2.26	21.71	250.7	1.61	30.37
29	7.31	94.84	954.2	4.22	7.88	4.31	55.21	1085.0	5.54	7.52	8.13	113.85	1068.5	6.38	6.97
30	4.55	36.38	810.7	6.86	10.06	2.40	17.71	837.6	12.41	10.14	8.59	146.75	717.8	5.68	9.15
31	6.59	12.81	149.7	0.92	46.54	4.29	10.16	187.5	1.35	40.89	2.24	17.17	231.7	2.24	33.37
32	4.25	35.71	520.3	1.22	15.05	2.71	34.05	541.9	1.14	14.20	5.11	57.57	484.4	2.46	15.01
ACT BAG	2.56	15.53	567.3	3.56	14.89	1.87	7.55	519.7	[illegible]	14.85	2.89	35.15	548.6	[illegible]	14.48
CALC BAG	3.30	17.62	517.4	3.08	15.98	2.24	12.36	542.5	4.02	14.55	3.50	40.58	525.1	4.21	14.75
33	0.35	1.56	123.5	0.10	69.87	0.60	5.04	133.0	0.24	62.15	0.33	0.66	105.2	0.04	82.71
34	4.55	23.03	1481.6	1.33	5.79	4.38	35.59	1611.5	5.55	5.17	3.99	8.67	1263.1	0.38	6.85
35	1.54	12.06	879.1	0.67	9.83	2.90	10.45	537.3	3.47	16.29	1.72	4.33	647.4	0.50	13.45
36	1.12	7.86	583.8	0.55	14.80	1.85	4.25	537.2	2.76	15.85	1.16	3.41	506.5	0.45	17.22
37	1.13	4.47	355.8	1.04	24.22	1.41	7.05	397.2	3.31	21.51	2.17	2.27	327.0	3.58	26.80
38	1.31	3.75	365.1	2.30	23.66	1.44	4.64	[illegible]	[illegible]	[illegible]	1.70	2.67	338.5	5.20	25.42
39	1.24	3.97	377.8	2.26	22.88	0.96	2.60	450.7	11.75	17.39	2.12	9.98	432.5	6.30	19.50

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	40	1973	PLYM	SPOR	360	41	1973	PONT	LEMA	350	42	1973	PONT	SAFA	400
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	5.25	135.73	1466.5	8.79	5.23	0.42	49.81	1381.4	5.42	5.07	7.58	69.12	1089.4	4.49	4.39
2	3.39	51.42	428.6	0.78	17.06	0.04	24.93	418.2	0.66	19.40	2.63	49.08	397.9	0.59	18.36
3	6.47	245.17	1724.9	2.79	4.17	0.36	43.64	1452.1	1.97	5.83	9.71	226.51	2266.9	1.35	3.34
4	2.75	32.66	1144.3	7.53	7.37	0.13	22.23	835.7	2.04	10.17	3.71	90.11	1410.0	1.98	5.69
5	7.37	33.07	774.3	5.22	10.45	0.20	5.02	700.8	7.33	12.51	40.40	29.50	1000.9	2.16	7.56
6	2.56	12.44	288.5	1.41	28.08	0.09	5.40	200.0	3.06	42.51	2.43	20.91	321.6	0.47	24.51
7	11.11	255.47	757.6	2.95	7.43	0.39	34.79	748.7	14.97	8.83	47.19	266.50	1149.4	3.89	5.17
8	2.38	19.87	222.6	1.32	23.96	0.27	10.45	167.0	2.08	48.17	7.63	18.75	410.4	1.96	19.14
9	4.39	164.55	597.7	3.12	10.20	0.22	6.52	699.9	11.42	12.49	31.13	220.71	866.7	1.76	6.74
10	2.32	30.75	301.1	1.06	24.88	0.29	7.91	207.1	2.68	39.58	5.25	25.68	306.9	0.93	24.39
11	6.90	259.20	835.6	2.96	7.02	0.33	17.96	835.4	10.18	9.60	36.75	178.78	1085.5	3.12	5.99
12	3.28	37.44	261.8	1.62	26.81	0.42	15.14	209.5	3.58	38.49	8.40	27.50	212.8	1.40	31.30
13	7.57	302.09	935.0	3.00	6.19	0.30	30.57	938.7	6.68	8.98	29.00	144.15	1195.8	3.99	5.86
14	2.12	20.70	166.7	0.85	43.09	0.30	8.78	238.1	3.29	32.41	5.12	22.10	248.9	0.60	27.80
15	3.14	27.90	324.6	0.25	21.45	0.20	16.39	322.1	1.57	25.47	1.63	35.15	332.5	0.31	22.55
16	7.01	130.83	761.4	-0.04	8.97	0.36	48.09	636.2	3.35	11.77	4.67	88.14	630.1	0.15	11.72
17	6.28	152.72	1124.6	6.07	5.41	0.36	32.48	1027.2	3.45	8.21	17.19	95.68	1320.5	4.13	5.62
18	2.77	23.14	280.7	1.34	27.24	0.22	15.01	230.4	0.81	36.27	3.55	20.05	281.3	0.20	25.19
19	6.97	49.84	1012.1	3.96	7.98	0.38	18.56	854.3	19.96	10.07	16.65	34.51	1269.2	3.43	6.04
20	3.62	26.73	319.1	1.29	23.82	0.36	22.54	311.3	3.43	28.76	4.76	36.42	352.5	0.32	21.38
21	9.30	335.35	1066.2	4.34	5.47	0.56	147.20	1013.8	3.50	7.08	41.88	323.50	1363.9	4.00	4.39
22	3.27	38.32	317.4	1.89	22.88	0.45	18.94	316.7	0.95	31.74	6.53	26.78	238.5	0.71	28.42
23	5.17	82.87	1474.1	11.49	5.48	0.37	36.11	1142.0	4.64	7.40	5.18	62.57	1340.2	2.47	5.06
24	6.30	252.14	762.1	2.98	7.53	0.24	13.75	747.1	12.55	11.47	21.71	141.78	870.8	2.07	7.64
25	2.01	27.89	234.7	1.38	31.15	0.29	17.30	168.1	1.85	45.24	5.95	17.37	254.0	0.78	29.53
26	4.73	60.14	541.7	1.15	13.61	0.29	34.11	440.1	2.21	18.28	6.24	78.02	464.5	0.58	14.62
27	6.69	220.97	896.4	3.15	7.02	0.26	20.45	842.3	5.70	10.14	18.61	64.73	1090.3	4.41	7.09
28	2.55	38.90	220.5	0.96	30.50	0.36	16.79	215.5	1.42	36.51	5.34	30.29	234.0	0.51	28.74
29	4.86	71.26	1282.8	10.54	6.29	0.36	49.89	1066.0	7.54	7.75	4.19	55.43	1532.1	2.32	5.44
30	6.86	202.82	807.1	2.37	7.73	0.32	23.80	830.2	12.21	10.10	30.01	237.14	959.7	2.31	6.22
31	2.09	20.97	228.8	1.59	33.07	0.32	14.96	183.6	2.47	42.64	5.73	21.50	301.3	0.61	25.13
32	5.96	70.31	426.7	0.27	15.96	0.34	22.73	418.5	1.99	18.84	3.69	36.94	500.8	0.53	15.56
ACT BAG	3.60	104.08	337.2	3.13	17.33	2.84	18.51	575.5	4.84	15.75	12.97	67.44	772.1	2.25	9.66
CALC BAG	3.88	89.51	559.6	3.76	12.46	0.86	17.95	527.5	4.04	15.89	13.58	68.45	877.5	1.89	8.65
33	0.72	32.05	89.6	-0.07	62.13	0.59	8.36	98.7	0.05	78.03	0.52	5.43	768.8	0.04	9.07
34	11.15	379.02	1105.4	-0.99	5.11	6.58	80.31	1144.1	0.77	6.76	6.65	84.24	1184.0	0.42	6.84
35	4.41	181.10	830.6	-0.18	7.86	1.65	7.95	800.2	0.67	10.81	2.27	37.60	631.1	0.38	12.69
36	3.00	123.54	544.9	-0.04	11.86	2.70	15.52	436.7	0.57	18.90	2.82	31.25	700.6	0.46	11.65
37	2.19	40.48	377.6	0.59	19.81	1.45	3.06	331.9	2.59	26.01	3.02	11.97	671.4	0.55	12.68
38	1.61	4.13	396.5	5.15	21.75	1.11	2.01	344.6	5.31	25.26	1.50	5.72	645.6	0.55	13.46
39	1.59	4.88	454.4	8.18	19.00	1.36	3.90	436.7	8.10	19.95	13.62	16.09	673.2	2.47	11.97

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
MODE	43	1973	TOYO	CORO	97	44	1973	VOLK	BEET	97	45	1973	VOLK	411	102
NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	10.06	125.99	603.5	5.29	10.65	3.58	75.03	395.4	2.71	16.42	8.46	395.62	804.1	1.58	6.77
2	0.60	16.12	161.6	0.54	47.00	2.67	42.37	206.1	0.59	31.57	2.58	79.30	170.1	0.05	29.30
3	24.30	288.22	536.4	2.07	8.32	6.83	62.16	436.9	0.61	15.96	6.68	204.04	783.1	2.10	7.69
4	3.38	34.79	440.6	2.48	17.28	4.09	48.05	460.3	2.49	17.82	3.04	100.30	596.1	3.20	11.62
5	1.62	10.68	373.0	4.07	22.47	3.54	27.54	335.7	3.20	23.12	2.91	134.62	448.0	1.28	17.29
6	0.73	11.49	121.0	1.19	62.80	1.30	7.57	134.8	1.17	54.13	4.53	39.32	128.7	0.26	43.32
7	2.72	39.51	483.5	5.19	16.01	4.06	26.05	410.5	3.38	19.12	2.97	139.10	404.3	1.27	14.04
8	1.04	11.27	113.7	1.87	65.89	1.21	13.62	134.5	1.77	59.26	2.18	43.55	97.4	0.74	51.38
9	1.86	9.14	372.9	5.32	22.62	1.99	19.37	355.7	3.24	22.63	3.11	74.76	320.7	1.27	17.81
10	1.46	19.11	73.1	2.21	82.37	1.37	16.50	111.0	1.90	62.82	9.54	46.33	122.9	0.91	39.20
11	2.52	23.59	429.3	5.85	18.71	3.15	32.39	415.4	4.32	18.60	4.13	208.86	497.9	1.14	10.70
12	0.96	17.04	89.0	2.04	74.70	2.41	26.34	157.1	2.05	41.05	14.82	42.20	86.4	0.76	41.44
13	4.73	52.13	402.8	5.59	17.73	5.12	40.64	393.2	4.80	18.75	4.77	237.49	544.8	1.30	9.51
14	0.72	12.66	87.7	1.46	80.75	1.10	13.54	119.3	1.42	50.44	2.71	26.84	74.0	0.60	54.54
15	1.30	16.43	88.2	0.70	75.13	1.56	34.64	139.2	0.31	44.69	2.71	54.72	102.8	0.07	44.97
16	1.33	66.11	201.9	0.90	28.23	4.14	107.35	311.0	-0.02	18.01	3.80	113.54	249.7	0.08	20.14
17	4.46	49.49	417.7	5.75	17.42	3.81	59.93	370.5	3.20	19.23	4.69	226.45	510.9	1.87	8.90
18	0.84	18.25	83.5	0.90	77.22	1.49	22.08	118.6	0.75	54.05	5.97	44.93	96.2	0.42	47.78
19	3.04	27.54	461.9	5.09	17.24	7.25	51.82	379.8	3.31	18.37	4.48	273.00	530.8	1.22	8.34
20	1.06	27.94	135.1	1.32	48.16	1.85	35.25	149.7	1.04	44.37	8.26	66.81	110.1	0.62	36.78
21	6.21	110.19	463.0	3.31	13.51	3.31	51.62	419.3	4.62	17.29	4.71	251.66	533.9	1.22	9.40
22	1.73	20.84	96.0	1.42	66.12	1.37	28.90	111.7	1.42	53.21	11.70	58.12	106.8	1.14	37.73
23	7.49	84.69	521.0	3.56	13.09	8.55	91.87	354.3	2.22	16.87	5.92	246.71	686.3	1.99	8.12
24	1.68	15.12	369.1	8.29	22.29	2.92	26.37	383.1	4.36	22.54	2.90	139.53	405.7	1.34	14.00
25	0.63	12.95	84.7	1.37	82.93	1.18	11.59	172.8	1.24	57.31	8.51	44.62	80.7	1.06	49.92
26	2.34	35.82	177.2	1.23	36.84	2.76	42.47	210.4	0.51	30.37	4.52	98.55	226.6	0.32	22.42
27	2.69	26.86	375.9	6.41	19.87	4.23	34.74	392.0	4.54	19.77	4.07	220.99	477.3	1.22	10.60
28	3.24	21.77	130.7	0.92	65.68	2.46	24.98	145.2	2.31	55.02	11.88	54.49	98.9	0.72	39.95
29	7.04	88.22	465.7	3.96	14.16	7.08	79.99	367.4	[illegible]	17.27	5.24	187.19	654.4	2.65	9.20
30	2.07	19.30	463.8	4.89	17.73	5.80	31.87	[illegible]	0.42	22.20	3.61	166.73	404.4	0.96	13.69
31	0.67	13.71	83.9	1.54	82.53	4.35	16.73	89.9	1.20	68.34	10.69	39.60	79.9	0.82	50.41
32	1.74	31.37	146.7	-0.02	44.05	3.29	34.61	[illegible]	2.05	24.34	5.53	94.81	193.7	0.53	24.55
ACT BAG	2.90	18.34	273.1	4.77	29.57	2.38	26.76	254.6	1.44	28.29	5.39	104.10	308.3	1.63	18.15
CALC BAG	2.06	23.27	271.8	3.60	28.19	2.47	21.99	247.6	2.86	28.63	4.22	88.01	289.5	1.49	20.12
33	0.62	14.59	31.9	0.01	154.30	0.62	6.16	50.3	0.02	143.32	0.29	9.28	39.0	0.04	165.83
34	6.88	180.97	355.2	0.10	13.42	3.21	85.01	409.4	0.33	11.88	3.26	114.40	489.6	0.39	13.06
35	1.42	11.82	554.5	1.30	15.37	2.33	30.60	520.0	0.97	15.42	3.52	125.19	292.6	0.22	17.73
36	1.23	6.35	314.5	0.97	27.02	1.23	12.22	234.4	0.58	25.99	1.38	42.29	215.9	0.18	30.95
37	0.61	4.39	255.0	1.34	33.64	1.06	8.63	239.2	1.71	34.65	1.22	43.93	165.9	0.25	37.16
38	1.05	4.80	207.3	3.38	40.69	0.65	3.09	255.4	2.74	33.84	1.07	30.03	242.4	1.40	30.29
39	1.29	7.90	255.1	5.13	32.67	0.95	4.19	243.2	4.09	35.12	1.31	15.49	270.0	3.43	29.74

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX 5A

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID
	46	1972	BUIC	SKYL	350
MODE NO	HC	CO	CO2	NOX	MPG
1	12.32	248.71	991.0	6.11	6.25
2	6.17	118.54	365.0	0.12	15.55
3	13.70	396.15	1406.1	1.87	4.22
4	4.24	50.54	963.5	5.87	8.40
5	3.26	20.46	680.9	8.10	12.27
6	2.14	11.99	339.2	1.57	24.77
7	3.89	25.78	607.9	11.19	13.43
8	1.40	13.56	216.7	2.07	38.60
9	2.60	10.56	620.1	8.35	13.76
10	4.28	25.12	267.4	1.60	27.70
11	2.85	23.42	834.9	9.85	10.07
12	6.54	36.37	254.9	2.08	26.40
13	3.13	29.44	934.1	11.28	8.56
14	3.73	25.55	211.3	2.47	33.71
15	3.94	63.04	241.9	0.35	25.11
16	7.58	188.75	584.8	0.21	9.80
17	4.08	47.70	978.2	10.22	8.31
18	4.01	44.66	246.7	1.07	28.93
19	3.50	38.55	897.9	9.50	9.15
20	4.91	65.48	307.6	1.11	20.83
21	4.51	63.42	1065.1	12.67	7.53
22	4.55	43.32	264.2	1.27	25.50
23	7.02	103.76	1087.6	9.00	6.97
24	3.05	23.84	710.4	9.69	11.72
25	4.95	44.33	216.1	2.07	29.44
26	5.76	103.74	400.2	0.28	15.26
27	3.39	30.88	808.0	11.22	10.23
28	4.62	54.14	236.0	1.28	26.43
29	7.02	101.52	1048.2	7.99	7.22
30	3.48	26.03	644.1	10.24	12.75
31	5.53	31.23	167.6	2.51	37.90
32	8.49	116.74	339.2	0.44	16.15
ACT BAG	2.97	38.17	555.5	7.08	14.20
CALC BAG	3.21	35.59	541.7	5.76	14.60
33	1.28	39.52	88.7	0.02	57.30
34	10.89	389.74	1113.4	0.33	5.04
35	5.44	217.33	587.4	0.19	9.38
36	2.50	80.10	633.3	0.76	11.57
37	1.81	14.96	425.7	2.49	19.51
38	1.33	3.72	451.3	5.14	19.24
39	1.11	3.54	476.5	6.95	18.28

	VEH	YEAR	MAKE	MODEL	CID
	47	1972	BUIC	ELEC	455
MODE NO	HC	CO	CO2	NOX	MPG
1	4.80	64.87	1953.8	10.51	4.29
2	2.41	46.36	[illegible]	1.07	15.35
3	5.51	127.78	2034.9	3.19	3.93
4	1.30	10.17	[illegible]	4.67	7.06
5	2.76	12.27	314.7	9.56	10.52
6	1.06	7.27	241.9	1.26	29.91
7	5.44	176.17	724.9	5.11	7.28
8	2.84	5.51	[illegible]	2.15	30.28
9	2.49	15.06	650.0	8.42	12.93
10	4.37	8.55	248.6	2.38	27.77
11	2.51	46.73	1143.2	10.11	7.25
12	5.87	10.42	267.7	1.90	29.87
13	2.41	32.23	1235.9	11.57	6.86
14	2.04	4.75	269.2	2.81	31.00
15	1.72	19.83	312.8	0.85	25.40
16	2.37	81.17	778.7	0.48	9.74
17	2.45	27.44	1308.0	12.29	6.53
18	1.40	8.54	294.4	3.14	29.21
19	1.55	24.06	1127.1	4.84	7.59
20	2.18	20.03	370.1	1.17	21.47
21	4.48	160.37	1277.1	9.12	5.76
22	2.94	13.41	337.6	2.47	25.07
23	2.88	38.00	1494.0	8.79	5.68
24	2.80	42.10	1058.6	10.45	7.83
25	2.19	3.12	213.0	2.47	25.50
26	3.06	45.73	415.2	2.43	16.80
27	2.00	24.90	1135.8	11.57	7.51
28	0.91	11.47	337.1	2.78	25.85
29	4.02	31.87	1429.4	11.65	5.95
30	4.04	71.24	1067.7	8.90	7.67
31	1.19	9.06	274.1	3.67	30.87
32	2.55	41.41	513.0	3.33	14.58
ACT BAG	1.82	27.27	711.7	6.81	11.47
CALC BAG	2.19	26.22	646.6	5.30	12.72
33	0.67	19.00	[illegible]	0.05	51.98
34	7.52	217.80	1307.0	0.44	5.07
35	1.79	47.86	1097.3	1.56	7.51
36	1.17	25.18	[illegible]	1.31	11.97
37	1.50	11.33	[illegible]	1.79	20.98
38	1.27	10.85	[illegible]	[illegible]	21.77
39	0.90	5.27	441.7	6.06	19.59

	VEH	YEAR	MAKE	MODEL	CID
	48	1972	CHEV	VEGA	140
MODE NO	HC	CO	CO2	NOX	MPG
1	4.56	64.45	745.7	4.66	10.20
2	0.90	25.84	235.6	1.08	31.35
3	4.26	151.47	709.7	1.03	9.23
4	1.67	38.73	572.7	2.70	14.61
5	1.74	25.17	383.4	3.75	20.71
6	0.53	16.33	155.2	1.64	48.62
7	2.39	76.99	566.3	4.52	12.77
8	0.61	12.32	169.4	1.78	46.80
9	1.38	22.21	459.2	4.78	17.80
10	0.72	10.77	168.9	2.17	47.20
11	1.19	48.60	541.2	3.76	14.29
12	0.88	14.97	141.6	1.52	52.77
13	1.40	43.90	574.8	4.38	13.69
14	0.35	16.83	142.4	2.44	52.21
15	0.03	23.69	155.6	0.75	45.97
16	-0.81	60.85	398.9	0.08	18.04
17	1.38	56.33	573.3	4.27	13.19
18	-0.07	19.95	149.7	1.05	49.10
19	1.20	46.73	587.6	4.17	13.35
20	0.10	30.29	178.1	1.04	39.27
21	2.87	140.19	655.8	3.57	9.99
22	0.57	19.41	209.4	1.48	36.72
23	1.37	62.52	629.6	3.07	12.12
24	1.10	32.08	457.3	4.32	17.32
25	0.83	19.14	171.8	1.45	43.30
26	0.33	46.58	256.3	0.78	26.76
27	1.24	37.34	495.8	5.12	15.91
28	0.45	22.78	160.8	1.10	44.84
29	0.93	72.63	592.7	2.22	12.51
30	1.08	54.59	492.0	3.76	15.27
31	2.30	14.43	112.1	1.95	62.49
32	-0.35	49.83	272.9	0.71	25.36
ACT BAG	0.74	25.43	357.7	4.35	22.19
CALC BAG	0.87	28.71	341.6	3.44	22.70
33	0.17	5.89	39.5	0.04	179.50
34	0.91	57.16	627.0	0.14	12.33
35	0.41	35.51	397.6	0.14	20.22
36	-0.02	6.55	425.6	0.35	20.46
37	0.48	12.80	222.4	1.65	36.37
38	0.53	13.33	250.8	3.95	32.45
39	0.37	16.33	303.8	5.71	26.30

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	49	1972	CHEV	NOVA	250	50	1972	CHEV	NOVA	307	51	1972	CHEV	[illegible]	250
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	8.22	74.62	978.6	4.10	7.91	5.29	10.81	1234.7	7.36	7.00	3.40	165.38	1579.2	12.75	4.80
2	3.88	43.87	287.8	0.59	24.05	1.10	-0.07	398.8	0.50	21.98	2.32	14.03	268.9	1.33	29.27
3	10.65	163.04	794.1	1.03	8.19	4.41	10.74	1120.4	2.08	7.67	6.59	223.39	1276.9	3.49	5.38
4	5.82	43.35	569.3	3.09	13.52	2.74	3.36	840.4	4.12	10.41	4.50	60.41	1075.8	4.50	7.50
5	3.82	29.90	528.4	2.69	15.11	2.14	4.01	700.1	5.02	12.31	2.71	35.78	1106.4	7.51	7.50
6	2.42	16.96	153.8	0.78	47.16	0.74	0.51	243.5	0.57	35.89	1.91	17.11	150.4	1.17	48.41
7	4.73	70.75	697.7	3.46	10.77	4.92	91.08	945.7	7.80	8.04	8.02	257.60	1021.3	5.37	6.14
8	1.77	7.67	156.1	1.76	50.38	1.29	1.51	209.8	1.02	41.04	1.35	12.25	160.5	1.96	47.64
9	2.57	14.63	511.5	2.42	16.34	2.07	5.42	752.7	3.32	11.54	4.03	41.07	843.1	5.15	9.64
10	3.73	15.91	164.9	1.19	44.05	3.92	2.93	251.6	1.07	33.04	4.23	20.59	136.6	0.74	47.60
11	3.15	31.74	653.5	4.29	12.44	3.83	1.74	901.8	8.70	9.68	5.58	82.24	1071.1	11.48	7.53
12	4.99	18.14	170.2	2.03	41.37	7.24	4.77	238.8	1.01	33.17	8.47	28.70	188.8	1.61	34.02
13	2.51	24.74	663.8	4.59	12.49	3.14	8.95	935.5	9.42	9.25	6.56	92.44	1163.7	12.82	6.67
14	2.78	15.13	172.1	1.01	43.38	3.18	4.14	227.7	0.80	34.33	7.70	19.95	179.9	1.07	37.66
15	3.03	34.72	221.1	0.33	31.12	1.75	4.01	289.4	0.62	29.45	2.51	15.77	157.8	0.70	46.67
16	6.15	117.29	535.2	0.82	12.01	4.06	10.74	697.9	0.92	12.20	1.90	90.69	350.2	0.48	17.80
17	3.74	49.05	736.8	4.34	10.75	2.30	10.62	974.8	7.88	8.86	7.40	108.38	1256.6	10.91	6.12
18	2.58	11.56	162.0	0.96	40.30	2.18	3.69	214.7	0.47	34.48	4.92	21.16	164.2	0.92	41.56
19	4.72	60.34	657.9	2.79	11.56	2.96	8.56	870.3	8.32	9.34	5.91	89.74	1173.3	10.51	6.63
20	2.69	45.50	213.8	0.82	30.29	2.38	4.25	348.8	0.74	25.14	8.33	35.87	238.0	0.92	27.67
21	6.04	174.32	756.[illegible]	3.90	[illegible]	5.89	127.01	959.1	7.21	7.54	9.70	268.46	1223.4	9.06	5.29
22	3.90	30.97	173.1	1.47	50.22	4.21	2.09	371.8	0.98	24.13	8.25	26.23	186.8	1.26	34.92
23	6.19	64.53	769.4	4.13	7.97	4.77	6.05	1011.3	7.14	8.57	0.61	121.19	1320.4	10.01	5.87
24	2.40	26.27	417.8	3.81	11.25	2.24	5.08	710.6	7.10	11.75	4.24	61.32	970.3	10.70	8.21
25	2.59	14.61	136.8	1.67	53.34	3.07	2.10	249.1	0.61	33.85	1.87	21.25	201.5	1.46	36.37
26	5.26	90.65	312.3	0.64	18.83	3.16	6.73	479.4	0.91	17.75	4.29	40.12	307.8	1.75	23.67
27	2.91	30.84	624.3	4.03	13.01	2.51	2.49	856.0	7.28	10.23	5.91	87.92	991.5	10.32	7.73
28	3.35	33.30	175.7	1.14	37.18	2.96	2.15	235.0	0.80	32.37	3.64	37.10	142.7	0.89	33.16
29	7.42	94.40	651.2	3.15	10.78	4.46	6.47	951.4	6.58	9.10	0.86	169.27	1078.8	5.54	5.51
30	3.32	38.56	656.5	2.72	12.20	3.81	8.80	807.0	7.06	10.65	5.16	105.73	993.1	6.61	7.55
31	3.35	21.44	109.0	1.03	58.01	4.28	3.35	198.4	0.51	40.50	5.13	16.73	149.3	1.36	47.30
32	5.47	94.12	327.7	0.57	19.01	3.29	6.99	489.8	0.94	17.60	7.05	53.21	247.1	1.51	25.14
ACT BAG	2.26	26.97	379.2	2.55	20.70	2.47	10.05	278.7	1.26	29.56	4.14	258.67	95.0	5.36	17.47
CALC BAG	2.82	29.85	393.1	2.85	19.77	2.35	9.32	497.3	3.41	17.09	4.16	52.34	591.1	4.77	12.53
33	0.54	11.74	68.0	0.03	100.67	0.05	0.12	14.4	0.04	602.66	1.03	15.55	40.7	-0.02	129.79
34	5.47	121.06	392.5	0.57	8.87	4.70	5.31	1087.4	2.10	7.99	7.09	147.68	748.9	-0.22	8.86
35	2.37	58.86	500.0	0.21	14.79	1.41	3.03	589.8	0.48	14.92	2.59	37.28	770.1	0.42	10.60
36	2.02	47.06	459.1	0.27	16.45	1.10	2.36	385.0	0.35	22.63	1.94	21.75	528.5	0.44	15.60
37	1.59	24.40	240.2	0.31	31.30	0.93	2.48	287.6	0.71	30.14	0.88	5.58	424.6	1.17	20.35
38	1.71	11.26	267.3	1.97	30.56	0.55	2.27	371.9	1.32	27.12	1.61	28.20	439.7	2.36	18.15
39	1.40	4.22	323.8	5.00	26.51	0.87	4.03	369.9	2.14	23.42	1.23	14.69	478.5	4.56	17.56

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX 5A

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	52	1972	CHEV	BISC	350	53	1972	CHEV	VEGA	140	54	1972	CHEV	KING	400
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	9.60	71.09	1517.1	11.12	5.35	4.76	69.88	749.9	4.49	10.15	7.44	37.81	1568.3	13.78	5.37
2	2.11	24.47	457.3	[illegible]	[illegible]	1.11	26.42	[illegible]	2.56	33.39	2.71	5.90	470.3	1.04	18.18
3	8.86	128.41	1288.1	2.48	5.85	3.82	71.01	706.2	1.91	10.70	6.32	21.07	1596.9	5.54	5.38
4	4.24	42.33	957.2	5.71	[illegible]	2.67	42.16	[illegible]	3.35	17.24	3.72	23.63	1066.5	6.79	7.96
5	2.31	16.16	778.3	7.85	10.92	1.64	20.72	371.9	4.53	20.65	3.31	17.57	779.5	10.32	10.85
6	2.02	17.39	322.0	1.46	24.73	1.12	22.29	149.0	1.39	47.29	4.35	5.27	218.6	1.73	36.87
7	4.87	33.75	1011.3	13.48	6.22	2.90	94.99	502.3	3.52	13.43	6.80	92.64	1183.4	13.46	6.65
8	3.73	22.66	238.8	1.57	31.01	1.10	19.77	165.9	3.06	44.36	4.47	17.25	206.1	2.24	35.88
9	3.09	17.57	696.8	7.52	12.09	1.68	174.54	84.9	3.53	24.35	4.22	27.50	855.1	12.65	9.73
10	4.94	18.85	243.8	2.13	30.70	1.30	22.32	135.5	2.43	53.88	5.97	5.77	205.1	2.62	38.07
11	2.90	24.72	855.7	11.79	9.79	2.05	53.48	487.4	4.53	15.36	5.15	54.86	1088.3	12.61	7.45
12	7.81	21.09	286.7	1.81	25.76	2.03	32.89	152.9	2.36	42.07	7.27	10.62	241.8	2.56	31.52
13	4.17	27.79	1057.5	11.87	[illegible]	2.05	41.56	575.4	6.00	13.71	5.00	41.44	1127.5	12.93	7.34
14	5.72	20.23	198.6	1.12	35.71	1.82	30.32	[illegible]	1.39	66.58	5.10	9.03	195.6	2.87	39.27
15	2.00	21.09	344.3	0.86	23.13	1.35	52.48	131.9	0.48	40.60	1.90	12.90	296.7	0.68	27.53
16	4.02	47.27	743.4	1.82	10.69	1.93	109.74	237.0	0.75	18.66	0.30	31.91	733.1	0.88	11.32
17	4.08	23.28	1105.1	10.31	7.69	2.74	66.34	564.9	5.06	13.09	5.70	77.34	1233.4	12.87	6.77
18	3.45	19.87	261.9	0.79	29.19	2.10	49.27	98.9	1.16	48.49	2.26	11.59	256.1	0.56	31.31
19	3.86	24.45	898.6	9.52	9.35	2.07	44.61	435.9	5.25	17.32	4.91	40.17	1165.2	12.19	7.14
20	5.04	31.06	386.2	1.28	19.66	1.83	46.14	[illegible]	1.35	40.12	3.75	16.05	301.0	1.09	26.25
21	6.69	106.50	1174.5	11.51	6.51	4.76	147.54	649.6	4.34	9.90	7.85	130.13	1352.9	13.30	5.61
22	4.12	20.54	295.7	1.13	26.02	2.12	36.37	160.4	1.52	39.57	5.03	19.77	251.1	0.86	29.77
23	5.51	49.47	1142.5	7.14	7.17	4.21	98.46	519.4	3.00	12.91	5.19	31.29	1330.7	10.25	6.36
24	2.68	17.76	807.2	9.05	10.48	1.86	32.32	453.1	4.86	17.41	4.27	32.31	984.8	12.76	9.35
25	4.27	18.03	318.0	1.30	24.67	1.97	28.75	80.7	1.46	57.17	5.15	10.52	190.8	2.04	39.68
26	2.52	29.62	451.9	1.44	17.53	4.09	58.74	[illegible]	1.06	30.78	3.96	26.79	515.7	1.43	15.56
27	3.55	32.92	956.4	9.25	8.71	2.08	32.36	504.6	5.46	15.79	4.77	40.92	975.7	10.74	8.41
28	5.07	27.63	275.1	0.76	26.52	2.23	36.93	73.2	1.75	64.16	4.76	16.46	237.5	1.39	31.88
29	5.73	60.87	1182.1	7.05	6.85	3.95	93.41	546.0	3.21	12.58	5.55	38.97	1201.4	8.55	6.93
30	3.88	33.86	930.7	11.17	8.91	2.37	70.00	487.6	4.11	14.67	4.80	36.64	992.5	12.36	8.33
31	2.97	24.03	187.5	0.91	37.50	2.17	29.83	89.9	1.87	61.78	4.24	18.54	189.0	1.79	38.33
32	4.72	49.64	539.5	1.49	14.03	2.66	84.90	186.8	0.83	27.00	4.11	42.04	520.7	0.72	14.80
ACT BAG	2.70	21.77	641.4	5.03	12.97	1.96	33.16	330.5	5.10	23.43	3.06	23.95	316.7	6.89	24.38
CALC BAG	3.43	32.53	713.2	5.67	11.45	1.88	36.24	302.1	4.21	24.31	3.76	22.18	606.3	7.15	13.59
33	0.55	1.98	92.3	0.06	91.39	0.39	5.11	42.3	0.11	172.25	0.43	0.63	101.1	0.15	85.81
34	5.38	21.07	1132.0	0.29	7.51	4.55	76.07	507.1	1.07	13.84	3.81	6.74	1182.2	0.99	7.37
35	2.36	9.18	622.4	0.12	13.78	2.28	44.99	259.3	0.27	26.32	1.56	9.02	821.8	0.89	10.55
36	1.56	5.32	669.1	0.61	13.01	1.02	7.23	297.6	0.67	28.43	1.25	6.71	550.1	0.72	15.72
37	0.68	11.08	652.5	1.91	13.21	1.09	4.72	197.0	3.91	42.70	2.04	5.13	366.0	3.38	23.32
38	0.71	2.83	731.9	4.62	11.87	1.30	11.92	[illegible]	5.38	35.48	1.29	2.97	382.4	5.28	22.69
39	2.98	59.81	826.8	7.20	9.54	1.34	12.95	289.2	6.80	28.29	1.95	9.11	460.0	9.46	18.47

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	55	1972	DATS	510	97	56	1972	DODG	TRAD	318	57	1972	DODG	DART	225
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	6.16	93.15	643.7	9.81	10.96	5.75	13.80	1071.9	11.06	7.98	5.83	84.11	852.4	15.47	8.85
2	1.00	14.99	165.4	1.13	46.20	5.03	4.54	337.5	1.17	24.61	2.51	38.91	283.9	1.19	25.14
3	6.87	155.85	439.3	4.21	12.57	6.39	18.82	1080.6	5.11	7.85	7.08	252.97	689.9	1.88	8.00
4	3.44	26.08	489.9	6.44	16.38	3.14	9.11	669.5	6.50	12.79	4.04	72.41	548.9	8.22	13.14
5	0.91	11.27	343.8	4.21	24.36	2.80	8.45	515.8	6.80	16.50	2.71	30.01	515.4	10.36	15.54
6	0.57	9.89	97.1	2.23	77.55	6.70	4.70	217.4	1.86	32.16	1.30	22.07	175.2	2.24	41.47
7	4.90	82.41	501.9	8.28	13.72	5.50	56.94	743.9	8.46	10.43	3.41	87.50	618.9	8.10	11.57
8	0.78	7.77	97.9	4.81	78.86	2.31	4.10	212.7	2.47	39.19	1.15	18.37	143.6	2.42	50.40
9	1.14	8.07	334.6	3.19	25.29	3.09	14.17	577.3	8.11	14.57	2.17	26.06	538.4	8.30	15.14
10	0.95	20.23	102.1	1.88	64.83	6.15	8.26	215.2	1.85	35.84	2.53	28.28	156.7	2.20	42.44
11	3.17	63.80	447.4	8.31	15.91	4.83	50.16	642.6	8.90	12.05	3.14	68.17	598.4	10.85	12.40
12	0.93	18.38	114.4	3.00	60.69	8.26	8.84	178.3	1.87	40.64	4.28	31.29	134.5	2.62	45.00
13	3.25	77.36	453.0	9.79	15.17	4.62	37.14	702.5	10.42	11.44	2.98	46.46	661.1	13.37	11.94
14	0.85	16.20	102.2	1.63	68.11	5.19	6.13	172.4	1.88	44.71	2.34	24.73	134.3	2.18	49.16
15	1.97	20.75	112.4	0.78	58.69	3.71	8.71	227.9	0.86	35.03	1.85	33.15	159.6	1.34	40.79
16	2.56	93.68	171.0	0.16	27.20	3.99	18.82	563.7	-0.07	14.65	4.93	156.68	325.5	1.03	15.11
17	4.76	105.56	525.3	9.79	12.57	5.33	46.77	773.1	9.06	10.28	3.64	56.32	688.6	13.44	11.25
18	0.73	14.50	96.7	1.81	72.87	6.24	8.51	208.0	1.46	36.81	2.10	31.68	139.0	1.80	45.42
19	3.78	98.82	494.8	8.79	13.41	4.53	35.44	636.0	8.49	12.57	3.06	53.30	603.3	11.90	12.74
20	1.12	24.52	145.7	2.51	47.26	7.77	11.78	276.9	1.09	27.73	2.91	48.37	192.4	2.08	31.97
21	8.42	138.57	525.7	9.42	11.52	7.11	138.40	810.0	7.67	8.45	4.21	130.55	721.3	11.07	9.44
22	1.12	19.12	139.3	2.80	51.33	5.88	7.43	166.3	1.25	45.15	2.99	35.99	163.7	2.27	38.63
23	5.00	85.04	496.4	7.38	13.74	4.63	29.44	848.8	9.60	9.76	5.33	97.39	670.6	12.79	10.56
24	0.92	13.43	341.9	6.90	24.26	3.68	33.55	600.6	7.67	13.35	2.44	28.82	555.4	10.01	14.59
25	0.55	21.04	106.6	2.00	62.79	5.58	8.85	178.7	1.83	42.20	2.18	27.10	118.1	2.86	52.96
26	2.61	29.00	169.3	1.17	39.78	5.01	11.79	353.3	1.13	22.89	3.26	70.71	241.1	1.64	24.46
27	2.22	39.33	382.2	8.20	19.68	4.55	41.90	633.6	9.41	12.43	2.83	37.89	582.3	13.54	13.64
28	0.92	24.36	106.2	1.50	60.23	6.57	8.14	186.8	0.75	40.27	3.04	41.57	116.2	2.88	46.43
29	4.80	79.20	434.6	7.46	15.45	4.95	19.31	819.5	10.26	10.25	5.03	92.41	645.0	11.39	11.01
30	1.61	31.96	452.4	8.44	17.48	4.19	47.45	656.2	7.93	11.93	2.68	43.45	611.9	9.55	12.89
31	0.71	14.66	85.3	3.25	80.29	1.40	7.91	248.9	1.81	33.40	2.68	23.73	136.0	2.97	48.82
32	2.89	43.25	150.9	1.70	38.93	6.08	38.03	455.5	7.71	16.60	4.43	72.15	250.3	1.70	23.50
ACT. BAG	1.77	24.56	258.9	5.34	29.28	4.24	15.01	414.4	5.58	18.44	2.56	32.85	363.8	6.28	20.95
CALC BAG	1.66	26.75	263.4	5.05	28.56	3.81	20.78	449.3	1.99	17.97	2.48	36.45	360.4	6.21	20.86
33	0.55	6.82	16.9	0.0	301.87	0.31	0.61	112.6	0.01	77.49	0.58	13.47	49.3	0.02	122.68
34	5.54	68.88	332.6	0.29	19.36	4.09	5.04	1058.7	-0.23	8.22	6.72	169.31	569.4	0.19	10.36
35	0.98	5.57	434.9	1.06	19.87	1.70	3.67	628.2	0.07	13.88	3.36	88.52	304.6	0.05	19.54
36	0.91	4.50	274.1	0.68	31.25	1.17	2.44	478.0	0.08	18.28	2.52	55.22	253.1	0.13	25.51
37	0.41	1.99	216.9	1.32	40.10	1.46	2.21	322.9	0.85	26.81	1.67	8.33	243.5	2.30	33.89
38	0.62	1.03	176.3	4.20	49.33	1.63	4.48	330.8	3.89	25.87	1.48	13.35	247.5	4.17	32.49
39	0.61	1.44	223.8	6.86	38.93	2.36	15.31	400.2	6.69	20.56	1.49	14.66	304.1	6.90	26.74

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	58	1972	FORD	PINT	122	59	1972	FORD	MUST	302	60	1972	FORD	MUST	351
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	8.55	131.38	694.4	11.08	9.56	4.18	57.26	1142.9	11.06	7.12	9.93	148.56	949.1	8.85	7.31
2	3.13	22.42	154.8	1.45	44.39	8.33	24.68	416.4	0.79	18.05	4.87	77.79	370.2	0.53	17.48
3	8.38	224.64	581.1	6.24	9.24	7.14	76.40	1124.3	2.09	7.01	12.41	346.16	985.0	0.93	5.73
4	5.44	59.72	432.0	9.11	16.34	8.99	27.36	764.3	6.23	10.62	5.89	82.72	660.4	4.18	10.97
5	4.72	47.27	353.9	5.77	20.03	4.58	11.06	636.8	9.44	13.27	4.69	25.24	554.2	5.74	14.58
6	1.93	8.71	132.0	3.42	58.48	2.84	6.42	219.5	1.17	37.20	4.56	15.86	244.3	1.18	31.29
7	7.98	95.49	534.9	6.45	12.50	7.03	55.01	873.5	12.12	9.04	5.03	23.22	794.4	9.51	10.48
8	1.88	10.84	131.7	2.79	57.38	2.35	6.07	219.5	1.65	37.54	2.93	13.18	242.8	1.46	32.53
9	3.97	74.51	373.8	5.42	17.63	4.13	9.02	656.1	11.52	12.99	4.33	23.41	574.4	5.45	14.20
10	3.08	12.44	154.2	3.10	48.35	3.60	13.82	244.1	1.06	32.02	5.76	31.44	205.6	1.50	32.48
11	6.10	117.38	472.6	6.89	13.12	6.35	29.29	966.0	12.70	8.60	4.89	40.94	665.6	9.22	11.91
12	3.83	13.30	117.3	2.31	59.03	5.09	18.05	234.7	1.42	31.79	11.31	35.10	283.6	1.83	23.69
13	5.60	105.29	504.8	8.47	12.90	6.04	24.12	814.5	14.58	10.18	5.80	52.52	744.2	9.33	10.50
14	2.72	12.62	149.5	3.02	49.88	3.16	10.81	196.6	1.57	39.70	7.21	23.00	190.7	1.27	35.55
15	3.39	45.11	112.7	0.83	45.68	4.63	19.53	284.5	0.52	26.91	3.69	49.39	243.3	0.44	26.69
16	5.80	110.97	228.0	0.95	21.09	3.94	87.54	707.2	0.92	10.35	9.50	244.08	486.3	-0.02	9.86
17	5.91	117.50	506.7	7.74	12.50	7.38	23.32	836.3	13.01	9.90	6.75	70.12	742.3	8.74	10.16
18	2.39	15.65	124.2	1.93	56.78	3.98	17.39	218.1	0.93	34.40	7.99	32.35	225.3	0.67	29.44
19	5.09	96.58	438.5	6.24	14.64	6.81	25.92	795.1	11.37	10.35	6.05	70.09	662.9	7.93	11.20
20	3.57	20.79	242.7	3.68	30.96	6.02	21.45	324.4	1.29	23.53	8.75	56.59	289.3	0.74	21.86
21	7.70	118.58	593.4	9.82	11.04	8.42	79.91	939.9	13.49	8.13	6.32	54.87	867.9	11.55	9.11
22	3.39	16.54	135.1	2.39	51.65	4.61	16.38	256.9	1.39	29.86	7.52	41.62	301.2	1.15	22.73
23	7.86	100.79	619.8	9.88	11.05	9.23	41.00	902.0	8.74	8.91	8.24	105.38	771.9	6.09	9.21
24	3.78	90.02	380.3	5.58	16.63	5.48	11.89	673.4	12.89	12.51	4.58	26.60	596.9	7.66	13.59
25	2.40	16.43	252.9	2.16	30.99	3.11	10.62	213.0	1.47	37.05	6.11	20.40	191.5	1.30	36.54
26	5.66	46.92	203.2	2.59	30.10	7.73	27.06	495.9	0.87	15.77	5.75	89.65	361.4	0.28	17.05
27	4.48	80.53	467.7	8.58	14.59	5.60	17.17	732.4	13.23	11.42	5.12	51.00	657.9	8.12	11.77
28	3.88	14.97	114.6	2.63	59.01	4.25	16.63	260.8	1.34	29.54	7.46	51.19	228.2	1.16	26.71
29	8.08	90.14	545.2	10.03	12.46	8.26	43.83	839.6	6.91	9.50	8.32	130.63	773.3	4.74	8.83
30	4.30	100.84	454.0	7.17	14.18	5.92	14.99	729.2	14.21	11.50	4.99	40.68	670.4	8.01	11.83
31	2.38	11.06	92.3	2.34	75.71	3.33	10.95	223.0	1.59	35.39	9.19	21.08	175.7	1.38	37.30
32	4.82	54.56	204.7	2.00	29.03	7.19	33.84	481.9	0.90	15.91	6.60	108.17	421.5	0.29	14.49
ACT BAG	3.40	44.09	298.3	5.73	23.46	3.67	21.29	465.4	6.94	17.39	4.10	53.75	450.5	5.25	16.20
CALC BAG	3.45	43.67	299.6	5.16	23.41	4.01	17.43	489.5	5.84	16.76	4.65	45.72	465.4	4.35	16.08
33	0.36	10.52	30.6	0.02	183.93	0.08	0.47	17.8	0.04	472.04	1.08	45.22	70.9	0.0	61.06
34	5.34	147.65	454.5	0.38	12.62	14.96	149.62	1233.4	0.81	5.85	12.67	565.71	838.6	0.05	5.02
35	2.91	75.94	255.0	0.19	23.14	18.76	41.42	759.6	0.79	10.04	4.04	130.09	956.6	0.65	7.56
36	2.32	43.21	211.3	0.35	30.97	7.59	29.69	487.0	0.42	15.91	3.46	138.03	428.9	0.13	13.51
37	1.99	14.14	209.4	2.60	37.31	1.65	9.44	356.3	0.69	23.58	1.54	25.08	396.3	0.80	20.14
38	1.89	8.70	244.6	4.84	33.59	1.63	4.60	348.5	3.63	24.59	1.94	13.70	361.4	2.86	22.83
39	1.78	14.34	267.5	6.69	30.02	1.89	8.94	406.3	5.53	20.82	2.18	22.61	412.7	5.37	19.50

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID
	61	1972	FORD	CUST	351
MODE NO	HC	CO	CO2	NOX	MPG
1	3.16	56.37	1179.6	9.96	6.94
2	2.69	14.58	488.3	1.32	17.08
3	4.07	58.71	1272.3	3.50	6.44
4	1.60	49.60	799.5	5.07	10.06
5	1.99	31.50	508.6	7.58	15.72
6	1.58	7.48	267.6	1.17	31.21
7	2.78	35.15	692.8	13.04	11.73
8	2.54	9.97	211.0	1.33	37.82
9	2.82	35.31	539.3	4.28	14.70
10	2.10	12.32	257.2	1.60	31.34
11	2.92	40.77	653.9	11.92	12.21
12	3.35	23.66	290.9	2.01	26.20
13	3.29	44.76	785.9	13.04	10.24
14	1.71	14.24	212.2	1.12	36.98
15	1.89	22.88	343.0	0.87	23.06
16	5.04	49.82	842.8	2.32	9.47
17	3.60	69.83	812.9	10.30	9.50
18	2.27	20.61	309.4	1.20	25.43
19	3.60	59.13	704.7	9.96	10.97
20	3.01	28.53	380.1	1.10	20.43
21	3.33	51.89	847.0	13.83	9.45
22	2.74	21.83	278.3	1.01	27.62
23	4.47	101.62	989.5	7.69	7.63
24	2.69	41.48	596.1	9.83	13.25
25	2.19	20.31	212.2	1.29	35.36
26	4.17	46.60	546.5	1.60	14.02
27	3.41	56.28	694.4	10.66	11.18
28	2.52	23.39	279.2	1.15	27.40
29	5.59	100.40	874.6	9.04	8.45
30	2.91	45.27	655.1	10.17	12.07
31	2.17	24.53	228.4	1.37	32.42
32	3.70	55.68	586.5	1.51	12.94
ACT. BAG	2.06	23.02	466.8	5.90	17.42
CALC. BAG	2.08	26.79	460.7	4.81	17.42
33	0.17	0.61	104.9	0.07	83.45
34	2.11	10.21	1258.4	0.91	6.93
35	1.00	4.72	686.1	0.17	12.74
36	0.39	2.54	483.0	0.21	18.18
37	0.34	3.41	348.8	0.61	24.99
38	0.95	6.26	304.6	2.83	27.96
39	1.34	21.28	322.7	3.83	24.63

	VEH	YEAR	MAKE	MODEL	CID
	62	1972	FORD	LTD	400
MODE NO	HC	CO	CO2	NOX	MPG
1	1.62	7.46	1413.0	12.16	6.21
2	5.99	3.11	[illegible]	0.66	15.59
3	4.00	11.36	1422.1	1.15	6.11
4	6.87	3.83	[illegible]	6.57	9.30
5	5.55	1.93	827.9	10.38	10.46
6	4.20	1.90	[illegible]	1.05	33.04
7	7.70	8.59	1073.8	8.68	7.98
8	4.78	1.21	287.4	1.19	31.20
9	4.66	1.74	879.2	9.65	9.90
10	4.55	1.75	[illegible]	1.00	30.07
11	5.89	2.94	1053.1	13.09	8.25
12	6.60	2.46	278.7	1.29	29.24
13	5.60	2.83	1100.8	13.25	7.90
14	3.84	1.73	211.2	1.12	31.03
15	3.46	2.58	445.1	0.43	19.29
16	0.17	10.63	841.3	2.32	10.10
17	6.90	3.96	1115.1	13.56	7.76
18	3.82	2.58	282.9	0.66	29.68
19	6.73	4.83	1115.5	12.27	7.76
20	5.91	3.86	[illegible]	0.82	22.85
21	9.07	13.53	1211.8	9.83	7.03
22	4.71	2.63	295.9	1.25	28.19
23	3.20	5.80	1209.1	9.78	7.13
24	4.04	2.05	891.7	10.90	9.78
25	3.93	1.74	262.1	0.87	32.01
26	6.57	6.30	[illegible]	0.87	15.76
27	4.64	2.94	932.4	11.22	9.33
28	4.26	2.87	[illegible]	1.02	27.17
29	7.65	5.32	1155.1	8.72	7.47
30	4.37	2.39	962.7	11.94	9.05
31	4.39	1.67	219.2	3.07	37.65
32	8.07	5.60	[illegible]	0.75	13.38
ACT. BAG	3.44	39.57	[illegible]	6.23	13.56
CALC. BAG	4.14	11.17	615.7	5.26	13.73
33	0.85	18.60	123.3	0.10	57.17
34	9.97	158.12	1576.3	1.75	4.78
35	5.04	84.96	817.4	0.76	9.18
36	3.48	52.23	527.6	0.57	14.30
37	1.83	8.22	411.8	0.95	20.62
38	1.73	8.56	[illegible]	3.02	21.04
39	2.39	16.28	463.7	4.82	17.86

	VEH	YEAR	MAKE	MODEL	CID
	63	1972	FORD	THUN	429
MODE NO	HC	CO	CO2	NOX	MPG
1	6.44	28.33	1398.5	15.41	6.06
2	2.57	12.17	522.1	1.07	16.16
3	4.18	27.90	1470.5	3.53	5.81
4	3.54	17.00	883.2	8.28	9.64
5	3.59	14.20	727.2	9.71	11.66
6	5.48	9.73	278.6	1.06	28.52
7	5.61	71.90	926.3	10.04	8.40
8	5.86	7.65	191.1	1.66	40.03
9	3.38	17.64	713.3	6.87	11.81
10	5.34	11.86	254.4	1.50	30.61
11	4.78	55.75	922.5	11.47	8.66
12	8.73	17.51	289.3	2.09	25.76
13	5.38	85.00	968.9	11.00	7.93
14	9.01	14.70	195.7	1.58	35.87
15	1.69	22.95	356.5	0.88	22.30
16	3.22	54.44	913.6	2.35	8.79
17	5.51	37.23	1077.2	14.82	7.70
18	3.04	20.01	327.3	1.95	24.10
19	6.17	77.23	994.2	10.49	7.82
20	4.21	25.93	404.2	2.05	19.37
21	12.92	477.15	936.8	4.14	5.14
22	5.03	19.46	360.2	2.03	21.82
23	4.98	39.10	1267.2	12.06	6.60
24	3.53	29.66	809.3	9.93	10.24
25	4.61	14.60	254.5	1.39	30.39
26	1.61	38.30	610.0	0.58	13.14
27	3.88	33.01	896.8	12.29	9.24
28	6.43	20.37	296.0	1.55	25.47
29	4.84	35.07	1127.1	11.50	7.41
30	4.30	43.38	896.4	11.40	9.07
31	8.32	16.64	247.0	2.51	29.63
32	3.56	45.57	625.5	2.30	12.53
ACT. BAG	3.32	28.57	581.1	6.57	13.94
CALC. BAG	3.63	33.00	579.3	5.05	13.81
33	0.31	0.89	136.5	0.08	63.72
34	3.36	11.24	1637.5	0.82	5.33
35	1.54	5.10	832.1	0.34	10.50
36	0.74	3.23	651.5	0.37	13.47
37	0.51	2.13	420.3	0.57	20.87
38	0.82	3.33	381.2	2.75	22.81
39	0.91	4.67	435.3	4.67	19.92

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST. LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	64	1972	LINC	MARK	460	65	1972	MERC	MONR	400	66	1972	OLDS	DELT	350
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	7.93	93.27	1484.7	1.53	5.36	7.51	21.59	1294.9	14.02	6.56	9.07	205.38	1234.7	9.42	5.60
2	2.51	36.75	524.2	0.12	15.05	4.25	10.81	580.4	1.46	14.53	5.99	111.84	314.3	1.06	17.43
3	7.09	107.51	1533.4	0.51	5.15	9.60	16.73	1278.8	5.40	6.65	12.39	423.44	1105.3	1.85	4.90
4	4.17	49.40	947.7	0.89	8.55	4.83	13.48	937.8	7.82	9.11	5.72	136.62	834.5	5.09	8.32
5	3.56	34.10	809.3	0.93	10.15	2.99	9.01	743.0	7.59	11.58	4.09	61.57	691.0	8.68	11.08
6	1.43	12.71	272.1	0.19	29.93	1.73	4.73	303.7	1.17	28.03	3.03	47.75	227.7	0.88	28.42
7	4.68	55.53	1002.9	1.55	8.03	2.48	47.94	904.0	9.82	8.99	5.11	94.24	852.3	9.86	8.73
8	2.60	13.75	253.8	0.61	31.29	1.93	3.34	244.1	2.07	34.74	2.47	18.15	192.8	1.87	38.72
9	3.93	36.16	824.1	1.07	9.93	2.05	9.77	798.3	8.45	10.82	3.43	41.67	660.3	9.23	12.05
10	2.23	22.34	278.7	0.21	27.66	2.18	5.30	290.4	1.60	29.04	5.94	38.04	173.8	1.07	35.16
11	4.46	46.13	1020.2	1.52	8.02	2.56	12.40	954.9	10.42	9.03	5.04	65.77	876.2	11.83	8.91
12	3.85	30.99	393.9	0.45	19.51	3.85	10.11	335.9	1.95	24.39	7.23	45.03	203.8	3.39	29.84
13	5.08	52.40	1073.0	1.53	7.58	3.00	14.45	1015.8	11.97	8.47	6.17	95.05	962.5	12.42	7.84
14	2.51	20.59	247.6	0.16	30.83	2.36	7.42	270.1	1.44	30.69	5.87	32.09	214.1	1.58	31.34
15	2.16	45.55	326.7	0.0	21.91	2.59	8.76	381.4	0.9[illegible]	22.00	5.57	94.08	174.9	0.16	26.07
16	6.55	156.05	799.7	-0.02	8.33	7.71	29.94	1009.6	4.69	8.21	17.58	267.37	414.2	-0.04	9.97
17	5.77	84.68	1090.8	1.26	7.15	4.34	13.86	1024.3	13.44	8.37	7.90	111.57	968.3	12.65	7.59
18	1.95	32.02	258.7	0.18	28.16	2.82	8.55	297.2	1.34	27.78	4.71	59.97	161.7	1.34	32.76
19	5.24	86.42	1006.7	1.16	7.66	3.92	14.04	960.6	12.41	8.92	6.66	108.60	825.6	11.16	8.72
20	2.27	44.33	386.6	0.22	19.15	2.52	11.84	430.8	1.29	19.40	14.36	88.68	226.0	0.73	21.60
21	5.99	110.73	1246.4	1.60	6.17	5.45	108.96	1196.3	10.99	6.41	7.75	168.59	1032.7	11.02	6.71
22	3.01	36.38	347.9	0.27	21.41	2.58	9.84	361.8	0.94	23.03	7.72	57.79	91.2	1.14	42.98
23	5.88	100.68	1149.8	1.09	6.69	6.02	24.39	1156.5	14.21	7.31	11.73	192.37	989.0	9.69	6.68
24	4.35	55.18	883.5	1.13	9.02	2.67	13.23	888.0	11.02	9.68	4.00	64.65	747.9	9.52	10.29
25	2.46	23.77	253.2	0.19	29.75	1.99	7.59	278.9	2.49	29.87	4.09	37.89	150.0	2.77	39.89
26	3.09	78.90	545.1	0.02	13.07	4.67	20.15	655.6	2.94	12.64	10.50	166.03	291.8	0.56	15.15
27	4.70	72.75	959.4	1.35	8.15	3.73	18.79	902.9	12.03	9.40	5.99	98.05	847.2	10.49	8.70
28	3.43	43.29	280.5	0.20	24.69	2.62	10.59	349.5	2.57	23.70	10.31	66.50	180.1	1.42	27.97
29	5.74	114.80	1130.6	1.03	6.68	6.30	48.54	1080.5	11.73	7.54	12.13	205.68	982.6	8.26	6.60
30	4.49	70.97	857.0	1.27	9.03	3.04	17.30	828.4	10.49	10.26	4.50	87.09	784.7	9.84	9.48
31	2.97	29.83	213.6	0.28	32.88	2.49	9.25	235.7	1.60	34.38	6.11	34.79	281.0	2.84	25.00
32	4.26	92.46	577.6	0.09	12.05	4.84	18.05	668.7	1.82	12.46	15.76	202.46	320.0	0.28	12.90
ACT. BAG	2.96	43.27	623.2	6.93	12.67	5.24	66.02	550.7	4.04	13.23	5.50	60.02	578.8	3.54	12.85
CALC BAG	3.02	39.48	625.5	2.83	12.73	2.71	12.24	604.4	5.77	14.04	5.01	77.68	492.6	4.95	14.08
33	0.69	11.57	140.5	0.12	55.19	2.14	0.49	139.5	0.01	60.35	1.23	36.73	66.4	0.0	69.31
34	7.83	151.50	1672.0	1.11	4.59	11.97	6.88	1814.8	0.38	4.76	15.88	483.58	826.7	-0.04	5.42
35	3.95	81.70	836.0	0.63	9.09	4.46	4.21	907.4	4.33	9.56	7.47	263.34	512.6	0.07	9.34
36	2.51	54.10	555.1	0.37	13.69	2.88	2.81	604.9	3.05	14.35	4.55	183.26	456.5	0.14	11.70
37	0.86	6.74	437.2	1.16	19.70	1.25	1.92	363.4	1.36	23.96	3.21	97.43	262.9	0.29	20.83
38	1.05	5.75	437.8	5.34	19.72	0.93	2.52	427.3	3.66	20.44	2.53	49.92	351.0	1.82	20.29
39	1.81	24.16	506.1	8.65	16.14	1.19	4.62	485.7	6.07	17.87	2.02	26.85	413.4	4.82	19.21

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	67	1972	OLDS	NINE	455	68	1972	OPEL	1900	116	69	1972	PLYM	FRY3	360
MODE NO	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	1.33	16.24	983.4	4.78	8.76	8.88	173.80	640.2	2.10	9.43	7.90	182.99	1173.2	10.99	5.97
2	0.91	10.06	294.2	0.59	28.36	0.88	37.44	242.0	0.59	29.23	4.99	131.80	413.7	0.26	13.94
3	3.21	26.52	942.9	1.89	8.92	2.88	133.46	613.5	0.82	10.66	8.09	321.82	1119.7	2.34	5.38
4	1.26	9.82	633.8	2.12	13.59	2.92	50.58	497.3	1.44	15.14	4.69	107.31	786.5	6.62	9.15
5	1.18	7.55	456.0	3.26	18.82	1.17	22.55	404.7	2.21	20.00	3.15	30.91	705.2	5.97	11.62
6	1.75	6.63	155.7	0.79	51.70	0.39	10.81	163.0	0.26	48.98	2.34	17.46	226.9	0.47	33.90
7	1.98	23.19	513.5	8.37	15.96	3.54	116.71	443.0	1.84	13.92	3.06	40.04	866.7	10.15	9.45
8	1.28	4.42	134.5	1.31	61.01	0.70	10.78	190.3	0.67	42.38	2.90	13.12	227.8	1.66	34.46
9	1.03	4.41	415.1	5.82	20.87	1.60	49.68	388.9	2.11	18.80	2.74	29.02	725.9	6.55	11.38
10	2.20	5.01	165.0	0.72	49.34	0.77	19.98	180.6	0.23	45.64	5.05	38.04	190.2	0.96	33.36
11	0.87	6.00	490.9	7.12	17.64	2.50	78.25	401.2	2.26	16.68	3.08	49.79	841.6	10.31	9.55
12	5.18	6.92	153.4	2.20	49.10	1.17	17.50	187.9	0.58	40.52	7.30	44.40	187.8	1.62	31.61
13	1.16	7.42	581.4	7.76	14.87	3.44	86.25	447.6	2.37	14.94	3.61	46.26	902.2	11.69	9.00
14	3.33	5.08	106.3	0.91	71.09	0.70	15.99	140.9	0.36	52.76	3.21	30.76	162.7	0.90	40.12
15	0.70	11.07	195.9	0.47	41.19	0.68	31.35	188.3	0.11	37.03	3.76	91.96	194.4	0.43	25.30
16	2.13	29.49	521.5	1.04	15.45	1.54	106.09	480.4	-0.02	13.61	7.13	202.40	491.6	0.92	10.66
17	1.22	9.91	626.3	6.01	13.74	4.59	135.10	492.9	2.00	12.33	4.63	69.67	1005.9	11.61	7.85
18	2.46	8.00	137.7	0.90	56.16	0.52	33.56	176.8	0.14	38.38	5.07	39.32	194.1	0.80	32.63
19	1.05	8.73	565.3	5.70	15.24	2.70	77.32	397.6	2.08	16.82	4.27	70.30	575.0	8.85	12.70
20	3.08	11.66	222.2	1.17	35.46	0.61	34.80	247.0	0.24	29.24	6.25	52.62	230.0	0.74	26.69
21	2.75	52.90	617.4	9.03	12.51	5.39	230.29	419.8	1.10	11.11	4.41	85.91	1038.3	12.21	7.48
22	3.05	7.94	170.4	1.57	46.08	0.56	23.69	182.9	0.28	39.99	7.89	51.98	168.1	0.50	32.29
23	2.01	19.40	776.3	3.73	10.91	6.15	174.38	496.3	1.38	11.24	6.80	94.79	1062.5	12.03	7.20
24	1.15	11.60	457.9	5.58	18.50	1.87	41.54	400.1	2.48	18.83	2.96	39.55	707.5	9.69	11.39
25	2.06	5.78	115.4	1.50	67.77	0.72	18.13	166.6	0.37	44.98	5.49	32.37	172.1	0.64	36.92
26	2.01	20.35	326.8	0.65	24.30	1.30	55.13	291.2	0.12	23.24	7.49	141.57	341.0	0.28	15.11
27	0.93	8.55	509.0	6.27	16.89	1.85	42.15	413.1	2.89	18.29	3.59	45.79	775.4	10.70	10.33
28	2.06	11.32	153.5	1.45	49.90	0.57	29.62	167.7	0.22	41.08	8.54	58.54	148.7	0.64	33.14
29	2.01	22.98	668.9	4.25	12.48	18.68	149.56	641.1	2.00	9.49	6.95	119.05	948.5	9.96	7.67
30	1.52	18.09	484.9	7.98	17.13	2.32	67.75	410.6	2.46	16.92	3.19	50.43	795.6	9.33	10.03
31	2.20	5.72	101.2	1.75	75.74	1.18	17.51	115.9	0.36	60.30	6.06	31.17	187.7	1.60	34.68
32	2.44	25.98	339.3	1.23	22.88	1.87	71.98	371.0	0.12	18.11	8.19	146.99	424.2	0.75	13.03
ACT BAG	1.59	16.11	338.3	5.05	24.08	1.80	40.54	329.3	1.82	22.26	3.57	8.15	460.9	5.92	18.30
CALC BAG	1.40	8.60	417.6	3.60	20.38	1.55	39.82	342.4	1.49	21.65	3.65	51.44	485.4	4.67	15.36
33	0.33	2.63	116.9	0.03	72.71	0.15	3.70	60.1	0.04	133.77	1.62	37.05	90.1	0.04	57.84
34	4.22	48.66	1409.0	0.34	5.92	1.06	38.99	898.0	0.86	9.22	12.05	371.59	936.2	-0.04	5.70
35	0.92	6.07	1118.5	0.63	7.85	0.77	23.08	752.4	0.96	11.22	5.91	225.10	602.1	0.07	9.11
36	0.69	3.78	691.6	0.42	12.68	0.75	23.01	495.1	0.61	16.63	3.78	167.07	405.6	0.13	13.05
37	0.62	4.35	457.0	0.93	19.05	0.47	9.99	339.6	0.83	24.88	2.26	54.51	299.8	0.64	22.61
38	0.59	2.03	356.7	2.24	24.54	0.48	9.67	293.5	1.08	28.61	1.27	15.99	344.8	2.65	23.73
39	0.55	2.82	433.1	4.33	20.20	0.46	6.34	364.4	2.49	23.62	1.14	14.24	388.1	4.52	21.44

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

MODE NO	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	7	1972	PLYM	FRY3	318	71	1972	PONT	VENT	350	72	1972	PONT	GRAN	155
	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	9.13	124.57	1261.7	16.20	5.97	5.66	41.54	1368.3	7.31	6.11	5.10	21.74	1612.8	5.28	5.34
2	3.11	22.34	310.6	2.11	24.96	2.27	23.50	594.5	1.17	13.90	3.67	23.58	440.7	0.83	18.14
3	0.24	213.82	1125.0	8.38	6.07	7.17	74.20	1539.8	2.25	5.29	8.31	32.45	1445.7	5.26	5.83
4	4.02	29.23	794.6	11.82	10.40	3.44	36.10	954.0	4.29	8.69	2.84	18.80	1147.1	4.76	7.49
5	3.50	21.46	741.2	10.94	11.29	3.37	19.31	539.7	6.33	15.28	1.68	11.14	822.3	5.29	10.50
6	1.68	10.87	179.0	3.20	44.08	1.55	15.23	257.1	1.19	31.04	1.54	9.77	328.5	1.05	25.45
7	5.08	69.17	957.5	12.96	8.20	4.90	33.57	862.0	8.73	9.54	1.87	12.70	968.3	10.27	8.93
8	1.52	13.93	164.5	2.55	46.41	1.66	13.49	236.7	1.93	33.73	0.71	7.67	309.8	4.03	27.38
9	3.14	25.16	474.0	10.42	16.96	2.84	13.82	591.7	6.99	14.26	1.34	10.93	807.1	8.20	10.71
10	2.83	17.42	185.5	3.39	40.02	1.27	13.83	261.3	1.60	30.92	4.30	11.39	213.5	2.04	36.23
11	4.49	43.48	893.9	14.08	9.09	3.86	26.94	866.6	9.51	9.63	1.80	12.91	997.1	9.72	8.68
12	5.05	24.29	179.8	3.09	37.94	2.25	16.84	318.2	3.46	25.23	5.00	16.94	252.9	1.31	29.35
13	4.76	46.20	894.6	15.07	9.04	4.19	26.15	952.0	11.29	8.82	3.51	27.92	1027.5	10.44	8.20
14	3.19	16.83	140.3	2.23	50.18	1.31	14.64	244.6	1.59	32.66	2.32	9.18	276.9	1.23	29.71
15	2.28	16.33	204.1	1.74	37.44	3.29	24.53	354.9	1.39	21.98	3.32	19.67	304.7	0.51	25.64
16	6.08	96.84	440.7	1.10	14.50	5.58	76.42	909.5	1.62	8.47	6.69	43.47	737.1	1.03	10.74
17	5.57	61.68	947.0	15.06	8.36	5.01	36.30	1003.8	9.76	8.24	2.45	18.02	1164.6	7.59	7.39
18	2.93	23.83	147.9	1.99	45.60	2.32	25.01	276.7	1.18	27.45	4.62	15.60	240.0	0.93	31.79
19	5.14	60.23	923.0	12.95	8.58	4.27	33.50	926.4	8.56	8.94	2.49	18.51	1114.9	5.96	7.71
20	4.05	34.75	219.2	2.76	30.96	2.84	31.11	371.4	1.30	20.67	6.83	21.59	332.3	0.91	22.88
21	7.05	138.87	1041.1	12.72	6.92	7.21	108.48	1079.1	8.99	6.98	2.42	20.41	1284.0	12.56	6.70
22	3.88	23.65	182.4	2.38	38.28	2.36	23.56	309.8	2.18	25.05	3.40	15.89	327.7	1.33	24.42
23	6.75	78.38	1053.9	15.71	7.41	6.20	62.05	1205.6	5.86	6.71	3.64	30.77	1290.6	4.45	6.57
24	3.69	35.86	774.1	11.25	10.54	3.83	23.24	677.5	9.16	12.22	1.31	13.28	882.4	7.36	9.78
25	2.45	15.03	160.0	7.24	46.37	1.72	18.47	256.5	2.49	30.50	2.32	12.87	284.6	1.67	28.43
26	3.81	41.09	301.7	1.72	23.46	6.29	57.65	588.4	1.93	12.70	5.88	34.21	461.9	0.71	16.61
27	4.52	54.41	820.7	12.46	9.64	4.62	31.73	817.3	10.46	10.06	1.67	20.41	1052.6	7.73	8.14
28	4.29	30.16	177.7	3.06	37.18	2.57	25.15	311.2	2.39	24.73	5.70	20.41	268.4	2.59	27.86
29	5.61	89.57	923.1	15.77	8.21	6.79	86.94	1132.0	5.11	6.88	4.16	31.79	1178.2	4.75	7.15
30	4.34	52.74	829.2	11.77	9.59	4.35	26.77	755.7	9.88	10.94	1.35	18.26	908.3	8.19	9.43
31	3.85	19.67	138.9	2.62	48.75	1.83	23.52	247.8	2.84	30.55	4.21	13.19	209.5	2.97	36.44
32	4.58	49.91	319.9	2.40	21.50	6.74	56.95	599.4	7.35	12.50	5.23	39.86	615.5	1.01	12.77
ACT BAG	3.20	34.96	315.9	6.22	23.29	2.53	17.81	514.7	6.17	15.28	2.64	5.93	623.8	5.38	13.84
CALC. BAG	3.08	30.84	489.2	7.96	16.21	2.74	20.75	563.8	5.31	14.67	2.24	11.74	645.9	4.85	13.22
33	0.56	18.06	53.9	0.02	105.59	0.76	4.25	135.1	0.29	61.57	1.01	1.16	112.2	0.64	75.74
34	5.49	190.07	652.5	0.14	9.16	8.15	47.54	1688.5	2.86	4.97	16.11	23.49	1301.3	0.48	6.39
35	2.31	67.46	477.6	0.24	15.02	3.46	25.49	876.4	1.05	9.57	6.65	7.08	692.0	0.31	12.25
36	1.60	28.31	374.8	0.32	20.91	2.52	17.76	571.0	0.72	14.62	3.61	6.13	535.0	0.26	15.96
37	1.47	2.69	315.1	3.17	27.39	0.60	3.21	462.5	1.08	18.91	1.04	2.80	462.5	0.78	18.88
38	1.19	1.94	335.5	7.50	25.92	1.12	3.57	396.7	2.78	21.87	0.73	3.28	486.5	2.83	17.97
39	1.34	8.48	415.6	9.92	20.49	1.77	5.72	430.1	7.22	19.96	0.52	4.08	571.7	6.22	15.31

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX D*

LISTING OF MODAL RESULTS ON INDIVIDUAL VEHICLES

ST LOUIS

MODE NO	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID	VEH	YEAR	MAKE	MODEL	CID
	73	1972	TOYO	CELI	120	74	1972	VOLK	S BE	97	75	1972	VOLK	SUPE	97
	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG	HC	CO	CO2	NOX	MPG
1	11.01	89.46	610.9	7.02	11.29	6.92	92.26	553.6	5.74	12.32	6.39	96.11	614.2	3.17	11.20
2	7.63	89.06	131.1	1.20	30.06	1.84	19.95	203.6	1.31	36.85	1.30	14.90	243.7	1.32	32.72
3	27.79	202.17	661.4	2.33	8.32	33.17	222.05	644.8	2.29	8.08	6.83	175.84	748.2	1.03	8.43
4	10.91	111.86	327.8	2.02	16.49	4.67	52.46	296.8	3.49	22.52	2.89	30.34	499.6	2.90	15.95
5	4.15	63.45	343.0	4.88	19.47	2.99	20.53	357.2	5.43	22.25	2.22	36.54	422.3	3.82	18.23
6	1.98	33.24	93.6	0.88	58.35	0.96	8.73	119.7	1.69	65.03	0.90	23.28	148.5	1.45	47.22
7	4.88	73.98	439.7	6.06	15.53	1.87	44.76	351.3	4.29	20.76	3.00	35.00	415.5	3.82	18.44
8	2.30	15.49	94.0	0.99	70.64	1.02	10.85	99.4	1.65	74.16	0.78	9.69	134.0	2.81	58.50
9	3.45	20.23	378.3	7.29	21.08	2.14	39.69	370.3	4.58	20.19	1.23	15.49	396.1	3.55	20.92
10	5.22	25.04	96.4	1.33	58.28	1.24	15.99	120.7	1.70	59.28	0.82	15.00	159.7	2.11	47.75
11	5.13	67.81	393.9	6.37	17.18	6.09	62.68	411.1	5.31	16.78	1.94	36.70	437.0	3.75	17.72
12	3.61	29.25	114.6	1.56	51.60	2.49	20.71	87.6	2.07	69.32	1.44	18.27	164.2	1.90	44.94
13	10.02	70.67	357.4	6.38	17.74	7.07	59.99	415.4	6.50	16.68	2.18	50.94	448.6	4.24	16.57
14	1.76	24.60	96.1	1.12	63.26	1.05	11.78	99.8	1.34	72.99	0.38	11.37	140.1	1.62	55.76
15	4.42	54.24	77.4	0.88	50.24	1.21	18.09	130.1	0.50	54.66	-0.04	16.44	137.5	0.23	54.37
16	5.34	132.98	229.4	2.33	19.50	3.21	70.41	306.9	2.05	20.75	4.68	48.23	331.5	-0.02	21.02
17	6.52	63.13	452.4	6.76	15.51	8.16	85.22	444.4	5.71	14.69	2.33	51.53	522.1	4.69	14.54
18	2.63	35.40	92.9	0.94	56.59	0.92	11.86	101.8	1.40	71.94	0.57	15.69	132.1	1.05	55.97
19	6.02	66.87	380.3	6.24	17.59	5.08	62.54	433.0	5.40	16.21	2.84	44.94	481.9	3.94	15.81
20	3.64	41.85	113.3	1.30	46.56	1.65	19.93	148.9	1.56	47.85	0.58	21.72	230.7	1.92	33.28
21	4.95	113.70	423.5	5.13	14.36	8.80	90.78	375.1	6.48	16.26	2.33	57.13	409.4	3.44	17.52
22	3.86	37.03	135.0	1.14	43.20	1.56	14.76	181.0	2.40	42.44	0.68	17.79	162.8	1.56	46.01
23	15.27	111.19	528.3	10.27	11.81	8.45	84.23	521.5	5.27	13.04	4.72	95.52	536.9	2.22	12.64
24	2.49	38.60	371.4	1.28	20.17	3.02	43.39	383.5	5.24	19.24	1.34	22.64	442.4	5.09	18.40
25	1.55	22.06	140.4	1.61	49.31	1.01	9.00	335.2	1.74	25.18	1.23	19.58	116.4	2.66	58.76
26	4.96	77.65	143.7	1.46	31.53	1.61	30.18	223.3	1.44	32.17	-0.07	27.43	226.4	0.32	32.96
27	4.80	49.52	423.4	7.94	17.19	4.47	53.60	404.2	5.95	17.66	2.27	44.51	454.4	4.37	16.70
28	6.72	35.11	86.2	1.28	54.55	1.41	16.81	122.4	1.79	57.91	0.55	19.91	144.9	1.21	49.88
29	15.84	142.75	503.7	4.46	11.40	9.35	90.06	475.0	5.37	13.73	5.32	84.56	512.4	2.75	13.40
30	4.19	69.84	406.2	5.87	16.77	3.90	60.32	370.1	5.56	18.60	1.38	36.47	426.6	3.56	18.18
31	1.97	17.91	97.3	1.73	67.38	1.00	11.93	119.8	2.27	62.63	0.39	14.57	102.9	1.23	69.88
32	5.15	86.52	143.2	1.52	30.04	3.77	42.90	288.4	1.49	27.93	-0.07	38.64	230.3	0.19	29.71
ACT BAG	4.63	42.56	245.3	3.81	27.15	2.26	28.97	287.8	3.62	26.46	1.77	22.53	183.2	4.03	39.59
CALC BAG	3.74	45.90	247.9	3.30	26.74	2.45	26.83	280.7	3.47	26.84	1.55	21.03	299.5	3.00	26.30
33	0.80	8.98	21.2	0.01	234.74	0.23	7.21	50.2	0.0	142.56	1.77	3.66	37.0	0.0	183.58
34	5.09	65.30	471.0	0.18	15.05	2.06	52.62	676.9	0.19	11.59	4.20	94.01	596.2	0.29	11.72
35	3.16	40.55	489.6	0.61	15.76	1.70	31.32	531.2	0.60	15.15	1.27	8.83	566.8	0.82	15.18
36	3.39	111.52	274.8	0.19	19.26	0.78	6.39	329.9	0.40	25.92	1.05	9.32	328.7	0.43	25.60
37	1.97	43.95	204.0	1.27	31.78	0.74	5.55	252.8	1.55	33.64	0.68	3.39	247.4	1.29	34.83
38	1.43	27.94	181.6	2.02	38.59	0.63	2.43	216.9	2.56	39.87	0.60	1.96	194.4	1.92	44.52
39	1.19	18.62	205.2	3.80	37.25	0.74	4.87	258.0	4.18	33.12	0.87	4.02	283.9	4.84	30.30

* EMISSION RESULTS IN GRAMS PER MILE (GRAMS PER MINUTE FOR IDLE)
FUEL ECONOMY IN MILES PER GALLON (MINUTES PER GALLON FOR IDLE)

APPENDIX E

LISTING OF EVAPORATIVE EMISSIONS TEST RESULTS ON INDIVIDUAL VEHICLES

Los Angeles

					DIURNAL (60 min.)			HOT SOAK (60 min.)						DISTILLATION TEMPERATURES									
VEH	MAKE	MODL	CID	TEST	SOAK TEMP	TANK TEMP	HC (GMS)	SOAK TEMP	TANK TEMP	HC (GMS)	TOTAL HC (GMS)	RVP	H/C	IBP	5%	10%	15%	20%	30%	40%	50%	90%	FBP
11	Amer	Mata	258	SHED	81	83	4.209	84	95	12.31	16.52	7.3	2.307	98	118	128	138	148	166	188	208	326	409
11	Amer	Mata	258	CAN	77	84	--	80	92	--	.06	7.6	--	98	118	128	138	148	168	190	213	326	410
12	Buick	Lesa	350	SHED	82	84	4.83	89	100	11.66	16.49	8.4	2.325	95	116	128	138	148	168	190	212	324	407
12	Buick	Lesa	350	CAN	81	84	--	81	105	--	-.01	8.3	--	96	118	128	138	148	168	188	210	330	410
13	Buick	Riviera	455	SHED	76	83	25.116	83	97	16.716	41.83	8.0	2.322	96	117	128	136	144	165	188	210	326	396
13	Buick	Riviera	455	CAN	79	84	--	79	101	--	1.2	7.9	--	95	118	128	138	148	166	188	214	326	416
14	Cadi	Coup	472	SHED	78.5	84	23.21	86	100	8.26	31.47	8.0	2.327	96	119	130	140	150	168	190	213	324	412
14	Cadi	Coup	472	CAN	80	84	--	83	99	--	.72	8.1	--	95	118	128	138	148	167	188	210	326	410
16	Chev	Vega	140	SHED	80	84	9.36	81	95	7.84	17.2	8.2	2.319	96	116	127	139	147	167	188	210	328	408
16	Chev	Vega	140	CAN	82	84	--	81	98	--	1.24	8.2	--	96	121	130	140	149	168	190	212	330	404
17	Chev	Pickup	250	SHED	80	84	1.55	86.5	89	12.20	13.75	7.5	2.380	98	120	130	140	149	170	188	208	327	402
17	Chev	Pickup	250	CAN	82	85	--	84	86	--	--	8.0	--	96	117	128	136	146	168	189	214	326	412
21	Chev	Impala	307	SHED	78	83	23.49	78	83	9.07	32.56	7.7	2.337	95	116	126	135	144	162	182	206	327	409
21	Chev	Impala	307	CAN	84	85	--	86	98	--	.08	8.0	--	96	116	127	137	147	167	189	212	330	403
23	Chev	Imp Wag	400	SHED	78	83.5	9.67	83	98	10.34	20.01	8.0	2.347	95	116	125	134	144	164	187	210	320	403
23	Chev	Imp Wag	400	CAN	80	84	--	80	96	--	.71	8.3	--	97	118	128	139	148	166	186	210	316	409
24	Chry	Imperial	440	SHED	84	84	21.16	85	85	12.87	34.03	8.3	2.315	96	116	128	138	147	164	185	210	326	401
24	Chry	Imperial	440	CAN	82	84	--	81	97	--	.09	7.8	--	97	115	126	138	146	166	188	210	326	406
26	Dodge	Swing	225	SHED	77.5	84.7	9.38	81	92	3.32	12.7	8.0	2.323	97	118	128	138	148	168	190	212	329	404
26	Dodge	Swing	225	CAN	80	84	--	81	94	--	.09	7.9	--	96	118	129	140	148	168	188	210	329	411
28	Ford	Pinto	122	SHED	84	84	5.094	85	97.5	8.455	13.55	7.4	2.333	97	117	127	138	148	167	188	210	327	408
28	Ford	Pinto	122	CAN	84	84	--	83	85	--	.05	7.9	--	97	116	126	137	148	168	188	208	321	412
31	Ford	Torino	351	SHED	79	85	8.92	85	99	26.89	35.81	8.3	2.306	96	117	130	140	150	167	186	207	326	407
31	Ford	Torino	351	CAN	78	80	--	80	85	--	.89	8.0	--	97	120	131	140	152	173	197	220	336	409
32	Ford	Galax	351	SHED	83.5	84.0	8.73	84.5	97.0	17.98	26.8	7.4	2.317	96	118	128	137	146	165	188	212	328	412
32	Ford	Galax	351	CAN	79	84	--	78	94	--	1.16	8.2	--	96	119	129	139	148	166	188	208	325	413
33	Ford	Ranchero	400	SHED	80.5	84	12.61	86	98	4.46	17.07	7.6	2.313	97	113	125	137	149	166	189	216	330	406
33	Ford	Ranchero	400	CAN	79	84	--	82	100	--	.29	7.8	--	98	118	128	138	146	165	186	208	324	406

Temperatures shown are degrees Farenheit (^{o}F)

APPENDIX E (Continued)

LISTING OF EVAPORATIVE EMISSIONS TEST RESULTS ON INDIVIDUAL VEHICLES

Los Angeles

					DIURNAL (60 min.)			HOT SOAK (60 min.)						DISTILLATION TEMPERATURES									
VEH	MAKE	MODL	CID	TEST	SOAK TEMP	TANK TEMP	HC (GMS)	SOAK TEMP	TANK TEMP	HC (GMS)	TOTAL HC (GMS)	RVP	H/C	IBP	5%	10%	15%	20%	30%	40%	50%	90%	EBP
34	Ford	Galax	400	SHED	84	82	6.914	83	95	19.91	25.92	8.0	2.311	97	118	129	138	148	170	191	214	333	415
34	Ford	Galax	400	CAN	79	84	--	80	92	--	.03	7.5	--	97	120	130	138	148	168	188	212	326	410
36	Merc	Mont	351	SHED	78	84	12.72	83	89	19.61	32.33	8.0	2.317	96	118	130	139	149	169	188	212	330	414
36	Merc	Mont	351	CAN	78	84	--	76	86	--	.05	8.0	--	95	114	125	136	147	168	190	212	330	418
37	Olds	Cutlass	350	SHED	78	84	21.63	85	96	15.09	36.72	8.3	2.347	95	118	128	139	148	166	188	211	327	403
37	Olds	Cutlass	350	CAN	82	84	--	82	107	--	1.12	8.2	--	97	119	130	140	149	169	190	214	332	412
39	Plym	Duster	318	SHED	82	82	9.83	85.5	95	2.12	11.95	8.3	2.318	95	117	128	138	148	168	186	209	330	410
39	Plym	Duster	318	CAN	82	84	--	84	97	--	.05	8.3	--	96	116	127	138	148	167	190	214	334	403
43	Toyo	Celica	120	SHED	80	84.9	10.35	84	98	12.38	22.73	7.9	2.315	97	116	127	137	147	168	186	208	332	406
43	Toyo	Celica	120	CAN	80	82	--	81	88	--	1.85	8.3	--	97	116	126	136	145	164	186	212	327	408
44	Volks	Bug	097	SHED	74	84	5.71	80	87	2.68	8.39	7.6	2.317	96	116	127	138	148	168	190	212	326	411
44	Volks	Bug	097	CAN	78	84	--	78	85	--	.25	8.2	--	95	112	124	135	147	168	193	214	327	402

Temperatures shown are degrees Farenheit (^{o}F)

APPENDIX F
TEST FUEL INSPECTION REPORTS
Los Angeles

HOWELL REFINING COMPANY
San Antonio, Texas
LABORATORY REPORT

File No.

Sample TECHNICAL FUEL Exhaust Evaporative Emission Fuel (Indolene 30)	Laboratory SA ☒ OC ☐	Date 11-9-73

INSPECTION		DISTILLATION			
Gravity, °API	65.6		% @	Initial Boiling Point	85
Color	Clear		% @	5%	110
Doctor	Neg		% @	10%	124
Corrosion	1-A		% @	20%	151
			% @	30%	174
R V P	9.0		% @	40%	195
			% @	50%	210
Octane No. F-1, Clear				60%	223
Octane No. F-1, + 3.1 ml TEL	102.1			70%	238
Octane No. F-2, Clear				80%	264
				90%	322
Octane No. F-2, + ____ ml TEL				95%	340
Total Sulfur, Wt. %	0.005			End Point	374
				Recovery	98.0
Mercaptan Sulfur				Residue	1.0
Flash, °F.				Loss	1.0

Pour Point, °F		Diesel Index		Paraffins, %	
Cloud Point, °F		Cetane No.		Olefins, %	8.8
Freeze Point, °F		Viscosity, S S @ ____ °F		Naphthenes, %	
Smoke Point, mm		Viscosity, @ ____ °F		Aromatics, %	14.8
Aniline Point, °F		B. S. & W.			
Aniline Gravity Const.		A.S.T.M. Existent Gum, mg		Phos.	0.0
Water Tolerance		Potential Gum, mg		Oxid Stab	1000+

Remarks:

Tested By: F.C. OLENICK

APPENDIX F (Continued)
TEST FUEL INSPECTION REPORTS
Los Angeles

TOSCOPETRO CORPORATION
Bakersfield Refinery

Date: June 12, 1974

TO : J. A. Kamps
FROM : A. G. Wyman

Subject: Emission Fuel

A.P.I. @ 60°F	55.9
Reid Vapor Pressure	9.0
Bromine Number, LAAPCD Test	<30
TEL, grams/gallon as Pb	3.1
Sulfur, Wt. %	0.03
Research Octane Number	100.0
Motor Octane Number	91.1
F.I.A., Vol. %, *	
Saturates	59.2
Olefins	4.6
Aromatics	36.2
Distillation, D-86	
IBP	92
5	116
10	126
15	136
20	145
30	166
40	185
50	208
60	230
70	257
80	288
90	324
95	354
EP	408
Recovery	98.0
Residue	1.0
Loss	1.0
10% Evaporated	124
50% Evaporated	206
90% Evaporated	320

RECEIVED
JUL 5 1974
AESi

*The FIA of the composite sample dated 6/15/74 submitted by ~~[illegible]~~ AESI as representative of the emission fuel delivered to your facility is:

Saturate	58.5
Olefin	4.5
Aromatic	37.0

APPENDIX F (Continued)
TEST FUEL INSPECTION REPORTS
St. Louis

AMERICAN OIL COMPANY

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WHITING REFINERY POST OFFICE BOX 710 WHITING, INDIANA 46

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CERTIFICATE OF ANALYSIS

CONSIGNEE:

Standard Oil Division
American Oil Company
P. O. Box 2858
Attn: Mr. Ralph Bunting
Detroit, Michigan

PRODUCT: Indolene Leaded Motor Fuel No. 30
TANK: 25
DATE TESTED: 3-25-72

PRODUCT ANALYSIS

TEST	ASTM METHOD	SPECIFICATION CONTROL LIMIT	TEST RESULTS SAMPLE NO D-18059
API Gravity	D287	58.0 - 61.0	59.5
Distillation % F.	D86		
Initial Boiling Point	D86	75 - 95	92
10% Evap.	D86	120 - 135	132
50% Evap.	D86	200 - 230	221
90% Evap.	D86	300 - 325	316
Maximum	D86	NMT 415	401
10% Slope	D86	NMT 3.2	2.8
Reid Vapor Pressure	D323	8.7 - 9.2	9.0
Oxidation Stability Minutes	D525	NLT 600	600+
Gum, mg/100 ml (after Hexane work)	D381	NMT 4.0	2.4
TEL Content, cc/gal.	D526	2.9 - 3.1	3.02
Sulfur Weight, %	D1266	NMT 0.10	0.06
Olefin, %	D1319	NMT 10	5.9
Aromatic, %	D1319	NMT 35	27.3
Saturates, %	D1319	Remainder	66.8
Octane Research with 3.0 cc Tel/Gal.	D2699	NLT 103.0	104.1
Octane Motor with 3.0 cc Tel/Gal.	D2700	-	96.1
Sensitivity with 3.0 cc Tel/Gal.		7.0 - 10.5	8.0

Date May 26, 1972

J. A. GRANT, Superintendent-Laboratories

per

Amoco Oil Company
P.O. Box 710
Whiting, Indiana 46394

Laboratory Services Division

CERTIFICATE OF ANALYSIS

CONSIGNEE:	Standard Oil Division Amoco Oil Company 205 Marion Attn: Mr. J. O. Logelin River Rouge, Michigan 48218
PRODUCT:	Indolene Motor Fuel HO III
TANK NO.:	After Batch 2R
DATE ISSUED:	4-22-74

PRODUCT ANALYSIS

TEST	ASTM METHOD	SPECIFICATION CONTROL LIMIT	SAMPLE NO. D-13472
API Gravity	D287	58.0-61.0	58.9
Distillation % F	D86		
Initial Boiling Point	D86	75-95	91
10% Evap.	D86	120-135	134
50% Evap.	D86	200-230	222
90% Evap.	D86	300-325	319
Maximum	D86	NMT 415	398
10% Slope	D86	NMT 3.2	2.0
Reid Vapor Pressure	D323	8.7-9.2	8.9
Oxidation Stability Minutes	D525	NLT 600	600+
Gum, mg/100 ml (after Heptane wash)	D381	NMT 4.0	0.4
TMEL grm. lead/gal.	D526	Nil	0.00
Sulfur Weight, %	D1266	NMT 0.10	0.014
Olefin, %	D1319	NMT 10	5.2
Aromatic, %	D1319	NMT 35	32.9
Saturates, %	D1319	Remainder	61.9
Octane Research (Clear)	D2699	96.0-98.5	97.9
Octane Research (3cc TEL/gal)	D2699	NLT 103.0	104.6
Phosphorus, gms./gal.	ACM 21.00	NMT 0.01	0.00
Sensitivity (Clear)		7.0-10.5	10.1
Sensitivity (3cc TEL/gal)		NMT 9.0	8.7

DATE MAY 23, 1974

J. A. GRANT, Manager-Laboratory
Services Division

per